

Global Data Watch

- Weak February releases don't dim confidence in growth bounce ahead
- As Fed remains patient, EM CBs respond to higher inflation
- China downshift in place as domestic demand slips in Jan/Feb
- Next week: March flash PMIs up; US Feb. durables and PCE contract

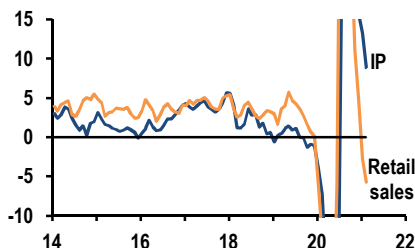
It's my party and I'll wait if I want to

Divergence has been the hallmark of the current quarter. While this week's reports highlight a sharp decline in global retail spending, factory output and goods trade continue to expand at a robust pace (Figure 1). COVID-19 dynamics have also diverged with positive news on case counts and the rollout of vaccinations in the US and UK contrasting with rising concerns in continental Europe and a number of EM economies. On inflation, we see pressure in commodities and core goods prices that contrasts with still-depressed service price inflation.

Wide divergences in performance normally make the path ahead more uncertain. However, we remain confident that a growth boom and higher inflation will get underway next quarter. Despite the near-term cross-currents, three developments bolster our medium-run conviction:

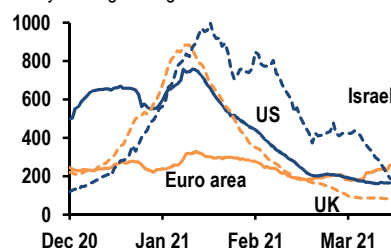
- **Vaccines at work.** Difficulties in containing COVID-19 variants are prolonging restrictions in Europe and are lowering our projections for the regional pickup in March/April. But Israel and the UK—economies with the highest share of the population receiving vaccinations—are rapidly containing the pandemic (Figure 2). The successful rollout of vaccines has enabled Israel to emerge out of a third lockdown ahead of a tight election for prime minister next week. Elsewhere, burgeoning vaccine production and delivery is aiding in the fall in US cases, while a stamp of approval by the European Medicines Agency for the AstraZeneca vaccine will provide a much-needed fillip to supplies across the region and pave the way for a material rebound in mobility and economic activity.
- **Here comes the consumer.** The resiliency of global factory output this quarter speaks to underlying strength in global business spending as well as the continued recovery in stock-building. This is being reinforced by an impressive rise in the latest business sentiment readings. At the same time, virus containment should release pent-up demand and boost consumption in

Figure 1: Global IP and retail sales
%3m3m, saar. Feb is fcst



Source: J.P. Morgan

Figure 2: New COVID-19 cases per million
7-day moving average



Source: Our World in Data, J.P. Morgan



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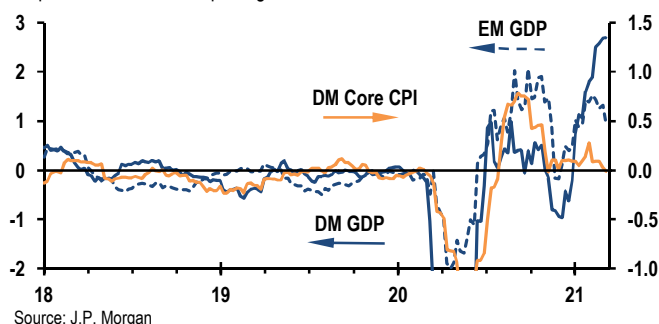
the coming months, reinforced by US fiscal stimulus as well as fading transitory drags that had depressed February spending in both the US and China.

- **Speed matters.** Through the past two expansions, growth has had little impact on inflation. However, it would be a mistake to interpret this to mean inflation is unchained from demand-side impulses. While the Phillips curve may have flattened, it is not dead and slack does exert a pull on pricing over time. Moreover, large swings in growth (notably around recessions and early recoveries) have been associated with sharp moves in inflation. The case for speed effects gained credence as inflation mirrored last year's dramatic moves in growth. The alignment of goods price pressures with the recent strength in global factory output reinforces this point. While services price inflation remains depressed (alongside activity), we are increasingly confident that the anticipated normalization in service-sector activity this year will be accompanied by bottleneck pressures on prices. The FOMC likely incorporated this development in its large upward revision to US 2021 core inflation this week.

At the same time that our confidence in this year's growth and inflation bounce is high, the movements in our forecast revision index (FRI) highlight two important sources of upside risk. First, we have revised up the level of year-end 2021 DM GDP by 2.7% over the past three months, but have not incorporated significant positive spillovers to EM (Figure 3). Indeed, the level of EM GDP has moved up by less than half this magnitude, with most of the EM revision reflecting upside surprises to 4Q20 as data came in stronger than expected.

Figure 3: JPM GDP and inflation forecast revision indices (FRI)

%-pt 12 wk revision in 4q rolling fcst; both scales



The second source of upside risk is [core inflation](#). Although our global CPI FRI has moved up significantly in recent months, we can attribute much of this move to higher global oil prices. Indeed, our 2021 DM core inflation forecast has remained unchanged since our November global outlook. This may not be surprising given the perceived absence of a Phillips curve relationship, but it doesn't account for the speed

effects that were on display over the past year and are likely to kick in yet again during the coming growth bounce.

DM CBs won't leave before they leave

A consistent message emerged from the DM central bank meetings this month: they intend to retain current levels of accommodation for some time further even as they raise their sights on growth and inflation. This commitment in part reflects their assessment that this year's inflation rise will prove largely transitory. But their reaction functions are evolving: they are willing to respond more slowly to growth and inflation as they facilitate a recovery with minimal scarring and restore inflation expectations by encouraging inflation overshoots.

While each G-4 central bank has become more optimistic about growth, there remains a clear divide in how they see the path to achieving their inflation objectives. The Fed now forecasts achieving a modest inflation overshoot in 2023. While this was not sufficient to warrant rate hikes for most of the FOMC, the terms of the debate now shift to normalization guidance. Similarly, we expect the BOE to update its forecasts in May to implicitly nod toward the possibility of rate hikes in late 2022 on an improved growth outlook and higher inflation. Meanwhile, the ECB and BoJ project inflation to remain meaningfully below their target over the next two to three years. The debate for these central banks is set to remain focused on considerations for additional easing.

While there is some differentiation around balance sheet policy, the basic message from central banks is that current policies will remain in place but can be adjusted if rising yields threaten financial stability. The Fed avoided mentioning tapering this week, but the rise in longer-term yields and the decision to end its SLR exemption will pressure officials to clarify their stance in upcoming speeches. The ECB was more forceful, committing to raise the pace of its PEPP buying over the next three months to actively counter the financial stability consequences of upward pressure on yields. The BOE continued with its £150bn QE program to minimize downside risks from an undesired tightening of financial conditions. By contrast, the BoJ adjusted the operational parameters of its policy tools to mitigate their impacts on market functioning in a way that could be perceived as reducing accommodation now to allow for more future policy flexibility if needed.

Norges Bank hawkishly stands apart

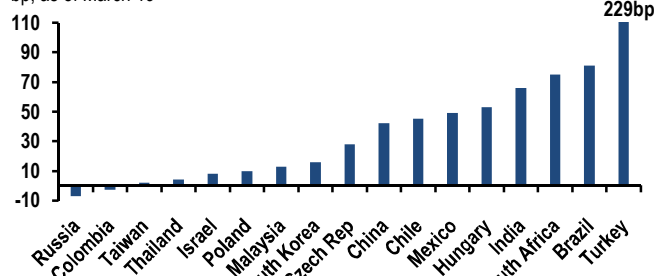
This week Norges Bank also kept policy on hold—but in contrast to all other DM central banks, it signaled rate hikes later this year. Inflation has been running above the target in Norway, and the Bank sees a rapidly closing output gap and faces

financial stability worries in its housing market. While it is a close call, we expect lift-off in September rather than December as 2Q GDP growth is likely to surprise Norges Bank's forecasts to the upside. We expect two more hikes in 2022. This would not be the first time in recent memory that Norges Bank was more hawkish than its DM peers: it bucked a generally accommodative backdrop by hiking three times in 2019.

EM high-yielders are tightening policy...

The contrast between DM central banks and EM high yielders is stark. Faced with rising global bond yields and falling currency values, most have experienced a damaging rise in inflation expectations. Some have been able to look through the increase, but others have intervened in FX and bond markets. Those dependent on external financing and facing credibility threats due to domestic politics are moving earlier than expected to tighten policy. Brazil and Turkey are in this group. Along with Russia, all three central banks appear to be front-loading their policy normalization, in the hope that a faster initial response will mean less cumulative tightening is needed. While we adjust policy rate forecast upwards to incorporate these shifts we continue to see EM central banks tightening [less than market expectations](#) this year (Figure 4).

Figure 4: EM policy rate changes: Market vs. JPM end-2021
bp, as of March 19



Source: J.P. Morgan. Please note the long-form nomenclature for China and Taiwan is Mainland China and Taiwan (China).

Political and financial stability risks have exacerbated inflation fears in Brazil, while Turkey aims to correct a prior over-extension of credit. Russia projects higher inflation due to DM growth spillovers and a strong demand recovery. Other high yielders are also moving away from easing, but hikes do not look imminent. In South Africa we expect a tightening bias to begin to emerge at next week's SARB meeting, but we do not yet see hikes before early 2022. Colombia's BanRep also meets next week and should stand pat, but we look for a front-loaded tightening cycle to begin in September on financial stability concerns. In Mexico, we now see Banxico staying on hold next week and beyond—despite unanimous support for a cut in February—due to stubbornly high inflation and lingering financial stability risks.

...but the rest are moving more gradually

Increased optimism about the growth and inflation outlook among low-yielder EM central banks is prompting us to pull forward rate normalizations, but hikes mostly remain unlikely before next year. This week we penciled in 2022 rate hikes in Taiwan and Singapore. This follows last month's change in the BoK stance, even as policy guidance and communication among the region's central banks remains dovish. Elsewhere in EM we see rate hikes late this year in Czechia and Chile, and next year in Peru, Romania, and Poland. Broadly speaking, we look for gradual moves toward policy normalization as output gaps narrow and core inflation rises. But outside of near-term volatility, few of these EM central banks are likely to see inflation push sustainably above their targets to force stronger policy responses.

China: Weak activity offsets strong exports

In sharp contrast to earlier strong export data, this week domestic activity in China came in on the weak side. Together these data suggest balanced risks to 1Q growth, assuming domestic activity rebounds in March as travel restrictions around the Lunar New Year end and special local government bond issuance increases. Consumption and services slowed in the combined January/February release due to the restrictions, with retail sales contracting by an average of 1.9% m/m in the first two months of the year. FAI activity in manufacturing and infrastructure also slowed notably, while real estate held up well. Seasonality and a weak start for local government bond issuance may have contributed to this weakness, although the slowdown in manufacturing is surprising given strong corporate loan growth since the start of the year. The bright export picture helped to raise IP by an average of 0.7% m/m in Jan/Feb.

Global economic outlook summary

	Real GDP			Real GDP						Consumer prices			
	% over a year ago			% over previous period, saar						% over a year ago			
	2020	2021	2022	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	2Q20	4Q20	2Q21	4Q21
United States	-3.5	6.2	4.0	33.4	4.1	<u>5.0</u>	9.5	8.3	3.0	0.4	1.2	3.6↑	2.7
Canada	-5.4	6.2↑	4.1↓	40.6	9.6	<u>5.0↑</u>	4.0↓	7.5↓	5.5	0.0	0.8	2.8	2.3
Latin America	-6.6	4.9↑	3.1↓	51.7	17.1↑	-2.8↑	2.4↓	4.2↓	3.7	6.5	6.7	10.2	9.2
Argentina	-10.0	5.8	1.7	61.7	<u>20.0</u>	0.0	1.0	2.0	1.0	43.8	36.3	53.5	55.0
Brazil	-4.1	3.2	2.4	34.4	13.3	<u>-5.8</u>	1.6	4.0	3.0	2.1	4.3	7.7	5.4
Chile	-5.8↑	5.9	3.2	22.1↓	30.1↑	<u>2.0</u>	4.0	4.0	4.0	2.9	2.9↓	4.0	3.5
Colombia	-6.8	7.5↑	3.6↓	43.1	26.5	3.5↑	2.6↓	4.4↑	5.0	2.9	1.6	1.8	2.7
Ecuador	-7.2	2.8	1.9	19.3	<u>8.0</u>	3.2	2.5	2.5	2.5	0.6	-1.1	-1.6	0.3
Mexico	-8.2	5.6	4.1	59.6	13.7	<u>-0.5</u>	4.4	5.5	4.0	2.8	3.5	4.5	3.5
Peru	-11.1	9.9	6.1	195.3	38.1	<u>-16.0</u>	-1.0	5.0	12.0	1.7	2.2	2.0	1.9
Uruguay	-5.7	2.8	3.0	35.2	<u>8.0</u>	0.0	0.5	1.5	2.7	10.8	9.7	6.9	7.1
Asia/Pacific	-1.2	7.8	4.7	24.9	13.8↑	<u>4.5</u>	5.4	5.5↓	5.0	2.0	0.7	1.6↑	2.3↑
Japan	-4.9	4.2	2.4	22.8	11.7	<u>-1.0</u>	6.0	5.0	3.0	0.1	-0.8	-0.4	0.4
Australia	-2.4	4.2	2.8	14.3	13.1	<u>2.3</u>	4.2	3.7	2.4	-0.3	0.9	3.4	2.0
New Zealand	-3.0↑	3.5↑	3.8↓	68.1↓	-3.8↑	-2.2↑	3.3↓	3.3↓	4.6↓	1.5	1.4↑	1.7↑	1.5
EM Asia	-0.3	8.9	5.3	25.6	14.5	<u>5.9</u>	5.4	5.8	5.6	2.6	1.0	2.0↑	2.7↑
China	2.3	9.5	5.6	7.1	14.9	<u>6.0</u>	5.0	5.5	5.7	2.7	0.1	1.4↑	2.7↑
India	-8.0	13.2	4.3	118.9	24.7	<u>11.0</u>	6.5	6.0	5.0	6.5	6.4	4.4	4.0
Ex China/India	-2.8	5.1	5.1	23.0	7.7	<u>2.9</u>	5.7	6.4	5.8	0.1	0.5	2.1	1.9
Hong Kong	-6.1	5.2	3.6	11.2	0.8	<u>3.9</u>	8.0	7.4	3.8	1.3	-0.3	1.1	2.6
Indonesia	-2.1	5.0	4.8	14.1	10.7	<u>4.0</u>	6.0	5.0	5.0	2.3	1.6	1.6	2.1
Korea	-1.0	4.1	4.4	8.8	5.0	<u>3.0</u>	4.0	9.0	5.0	-0.1	0.4	2.1	2.2
Malaysia	-5.6	6.8	4.9	95.3	-1.0	<u>2.5</u>	9.0	5.0	5.0	-2.6	-1.5	2.8	1.9
Philippines	-9.5	7.0	5.7	36.1	24.2	<u>3.6</u>	5.3	5.3	6.6	2.3	3.1	4.7	3.6
Singapore	-5.4	5.7	8.0	41.0	15.9	<u>1.0</u>	5.0	3.0	5.0	-1.2	-0.1	1.4	1.1
Taiwan	3.1	6.2	3.6	18.5	5.8	<u>4.0</u>	6.2	6.0	3.5	-1.0	0.0	2.0↓	1.8
Thailand	-6.1	4.3	7.8	27.3	5.4	<u>0.0</u>	6.2	5.0	14.0	-2.7	-0.4	1.8	0.0
Western Europe	-7.1	5.4↓	5.1↑	61.7	-1.2	<u>-2.4</u>	9.9↓	13.3↑	5.6	0.3	-0.1	1.8↓	2.3↓
Euro area	-6.8	5.3↓	4.9↑	59.9	-2.6	<u>-1.0</u>	7.5↓	12.5↑	5.5	0.2	-0.3	1.8	2.3↓
Germany	-5.3	4.1↓	4.9↑	38.6	1.4	<u>-4.0↑</u>	7.5↓	14.5↑	4.0	0.7	-0.6	2.3↑	3.7↑
France	-8.2	7.0↓	4.5↑	96.9	-5.7	<u>4.0↓</u>	4.0↓	9.5↑	5.5↑	0.3	0.1	1.8↑	1.9↑
Italy	-8.9	5.9	5.7	80.3	-7.5	<u>-1.5</u>	10.0	14.0	6.0	-0.2	-0.4	0.8↑	1.5↑
Spain	-11.0	6.6	7.4	83.7	1.6	<u>-2.0</u>	10.0	15.0	11.0	-0.6	-0.8	1.2↑	1.9↑
Norway	-3.1	4.0	3.6	21.6	7.8	<u>-2.0</u>	6.0	6.5	4.0	1.1	1.3	3.4	3.5
Sweden	-3.0	3.3	3.7	28.3	-1.0	<u>-0.5</u>	7.5	6.5	4.0	0.1	0.6	1.6↓	1.0↓
United Kingdom	-9.9	6.8	6.3	81.9	4.0	<u>-9.4</u>	22.1	19.3	6.7	0.7	0.6	1.9	2.4
EMEA EM	-2.7	4.4	4.2	41.6	<u>4.2</u>	0.1	5.9	5.0	4.4	4.1	4.9	6.1	5.3
Czech Republic	-5.6	4.6	5.2	31.6	2.4	<u>0.0</u>	8.0	8.0	6.5	3.1	2.6	2.6	2.6
Hungary	-5.0	5.2	6.0	51.7	5.6	<u>-2.5</u>	9.5	8.5	8.0	2.5	2.8	4.6	4.3
Israel	-2.4	6.6	5.5	41.7	6.4	<u>2.8</u>	8.7	5.7	5.3	-1.1	-0.7	1.1↑	1.2↑
Poland	-2.7	4.2	6.1	35.5	-2.8	<u>-0.9</u>	9.8	8.7	8.1	3.2	2.8	3.4	3.7
Romania	-3.9	6.0	6.5	24.1	20.7	<u>-2.5</u>	6.1	11.2	7.0	2.5	2.1	2.9	3.9
Russia	-3.1	3.4	2.9	24.0	<u>2.3</u>	2.0	6.0	4.0	3.5	3.1	4.5	5.3	4.6
South Africa	-7.1	4.3	2.4	67.3	6.3	<u>1.8</u>	2.8	2.2	2.5	2.4	3.2	4.7↑	4.5↑
Turkey	1.8	4.8	4.1	80.7	6.9	<u>-3.9</u>	0.8	1.3	1.6	11.7	13.5	15.7	12.5
Global	-3.6	6.5	4.4	38.1	<u>7.4</u>	2.5↑	7.3↓	7.9↑	4.5	1.5	1.3	3.0↑	3.0↑
Developed markets	-5.0	5.6↓	4.2	42.4	3.4	<u>1.5↑</u>	8.9↓	9.6↑	4.0	0.3	0.5	2.5	2.3
Emerging markets	-1.5	7.7	4.8	31.7	<u>13.4</u>	3.8	5.0↓	5.4↓	5.2	3.4	2.4	3.7↑	4.0↑
Emerging ex China	-4.6	6.2	4.2	51.5	<u>12.1</u>	2.1↑	5.0↓	5.4↓	4.7	3.9	4.3	5.6	5.1↑
Global — PPP weighted	-3.4	7.0↓	4.5	39.4	<u>9.0</u>	3.3↑	7.0↓	7.3↑	4.6	2.0	1.6	2.9	2.9

Note: For some emerging economies seasonally adjusted GDP data are estimated by J.P. Morgan. Bold denotes changes from last edition of *Global Data Watch*, with arrows showing the direction of changes. Underline indicates beginning of J.P. Morgan forecasts. Unless noted, concurrent nominal GDP weights calculated with current FX rates are used in computing our global and regional aggregates. Regional CPI aggregates exclude Argentina and Ecuador. Source: J.P. Morgan. Any long-form nomenclature for references to China; Hong Kong; and Taiwan within this research material is Mainland China; Hong Kong SAR (China) and Taiwan (China).

G-3 economic outlook detail

				2020			2021				2022
	2020	2021	2022	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q
United States											
Real GDP	-3.5	6.2	4.0	-31.4	33.4	4.1	5.0	9.5	8.3	3.0	3.5
Private consumption	-3.9	8.0	4.2	-33.2	41.0	2.4	8.3	11.5	9.5	5.5	2.5
Equipment investment	-5.0	15.8	6.1	-35.9	68.2	25.7	15.0	10.0	9.0	9.0	6.0
Non-residential construction	-10.6	-1.0	6.4	-33.6	-17.4	1.1	10.0	3.0	5.0	6.0	8.0
Intellectual property products	1.6	7.7	8.5	-11.4	8.4	8.4	10.0	9.0	9.0	9.0	9.0
Residential construction	6.0	17.6	6.2	-35.6	63.0	35.8	13.0	14.0	12.0	7.0	5.0
Inventory change (\$ bn saar)	-80.9	43.2	28.0	-287.0	-3.7	48.0	-30.8	38.2	117.5	47.9	49.8
Government spending	1.1	-0.4	4.6	2.5	-4.8	-1.1	-0.2	0.4	0.4	3.4	6.9
Exports of goods and services	-13.0	5.6	4.8	-64.4	59.6	21.8	5.0	4.2	4.4	4.3	5.5
Imports of goods and services	-9.3	15.9	8.1	-54.1	93.1	29.6	10.0	13.0	13.0	11.0	7.5
Domestic final sales contribution	-2.6	7.0	4.8	-28.5	30.1	4.5	7.8	9.8	8.4	5.9	4.2
Inventories contribution	-0.7	0.7	-0.1	-3.5	6.6	1.1	-1.7	1.5	1.6	-1.4	0.0
Net trade contribution	-0.2	-1.5	-0.6	0.6	-3.2	-1.6	-1.1	-1.8	-1.8	-1.5	-0.7
Consumer prices (%oya)	1.3	2.7	2.2	0.4	1.3	1.2	1.8	3.6	2.8	2.7	2.3
Excluding food and energy (%oya)	1.7	1.7	2.1	1.3	1.7	1.6	1.4	2.2	1.6	1.7	1.9
Core PCE deflator (%oya)	1.4	1.8	1.8	1.0	1.4	1.4	1.6	2.2	1.7	1.8	1.6
Federal budget balance (% of GDP, FY)	-15.0	-16.7	-10.1								
Personal saving rate (%)	16.1	12.9	6.8	26.0	15.7	13.0	20.1	13.7	10.4	7.5	6.7
Unemployment rate (%)	8.1	5.2	3.8	13.1	8.8	6.8	6.1	5.4	4.8	4.5	4.1
Industrial production, manufacturing	-6.7	7.1	2.8	-46.5	56.3	11.2	4.3	8.0	5.8	2.8	2.0
Euro area											
Real GDP	-6.8	5.3	4.9	-38.8	59.9	-2.6	-1.0	7.5	12.5	5.5	4.0
Private consumption	-8.1	4.3	4.7	-41.6	69.5	-11.5	1.0	8.0	12.0	5.0	3.5
Capital investment	-8.5	7.0	6.3	-50.5	68.3	6.4	2.0	8.0	10.0	10.0	5.0
Government consumption	1.1	4.0	2.1	-8.4	19.9	1.7	3.0	4.0	2.0	2.0	2.0
Exports of goods and services	-9.8	9.7	4.6	-56.6	85.4	14.9	2.0	14.0	11.0	3.0	3.0
Imports of goods and services	-9.3	8.1	4.9	-55.1	56.1	17.4	2.0	15.0	10.0	3.0	3.5
Domestic final sales contribution	-6.0	4.7	4.3	-35.5	55.3	-4.8	1.6	6.8	9.1	5.2	3.4
Inventories contribution	-0.2	-0.5	0.6	0.0	-5.8	2.5	-2.7	0.5	2.5	0.2	0.7
Net trade contribution	-0.6	1.0	0.1	-3.4	10.4	-0.3	0.1	0.2	0.9	0.1	-0.1
Consumer prices (HICP, %oya)	0.3	1.8	1.2	0.2	0.0	-0.3	1.2	1.8	1.9	2.3	1.0
ex food, alcohol and energy	0.7	1.2	1.1	0.9	0.6	0.2	1.3	0.9	0.9	1.5	0.6
General govt. budget balance (% of GDP, FY)	-9.2	-6.5	-3.7								
Unemployment rate (%)	8.0	8.4	8.3	7.6	8.6	8.3	8.2	8.4	8.4	8.4	8.4
Industrial production	-8.4	8.0	4.0	-49.7	82.9	16.6	0.0	5.0	5.0	5.0	4.0
Japan											
Real GDP	-4.9	4.2	2.4	-29.3	22.8	11.7	-1.0	6.0	5.0	3.0	2.0
Private consumption	-6.0	3.1	2.9	-29.5	22.0	9.0	-4.0	7.0	6.0	4.0	2.5
Business investment	-6.0	3.1	5.2	-21.5	-9.2	18.2	3.0	2.0	9.0	8.0	5.0
Residential construction	-7.0	-1.7	1.0	2.0	-20.9	0.2	3.0	1.0	1.0	1.0	1.0
Public investment	3.7	3.2	0.8	9.3	3.8	6.1	1.0	2.0	2.0	2.0	1.0
Government consumption	2.7	3.4	-0.4	1.0	12.1	7.6	2.0	0.0	0.0	0.0	0.0
Exports of goods and services	-12.4	13.9	7.8	-52.9	33.2	52.4	10.0	10.0	15.0	10.0	8.0
Imports of goods and services	-6.8	6.4	9.4	5.1	-29.0	17.0	12.0	10.0	15.0	15.0	10.0
Domestic final sales contribution	-3.8	3.0	2.4	-17.9	12.5	9.7	-1.1	4.2	4.7	3.5	2.2
Inventories contribution	-0.1	-0.1	0.3	1.3	-1.4	-2.6	0.4	1.8	0.2	0.3	0.1
Net trade contribution	-1.1	1.2	-0.3	-12.6	11.8	4.7	-0.3	0.0	0.1	-0.8	-0.3
Consumer prices (%oya)	0.0	-0.1	0.2	0.1	0.2	-0.8	-0.4	-0.4	0.1	0.4	0.0
ex food and energy	-0.1	-0.2	-0.2	0.0	-0.1	-0.5	0.0	-0.8	-0.1	0.0	-0.2
General govt. net lending (% of GDP, CY)	-11.6	-10.8	-6.3								
Unemployment rate (%)	2.8	3.0	2.8	2.8	3.0	3.0	3.1	3.0	3.0	2.9	2.9
Industrial production	-10.3	11.5	3.1	-52.3	39.9	27.8	15.5	11.0	10.0	2.0	2.0
Memo: Global industrial production	-5.4	9.0	3.8	-25.5	69.1	13.2	3.6	7.2	5.9	3.9	0.0
%oya				-13.9	-3.6	-0.2	4.2	19.3	7.3	5.0	0.0

Note: More forecast details for the G-3 and other countries can be found on J.P. Morgan's Morgan Markets client web site. Source: J.P. Morgan

Global Central Bank Watch

		Official rate	Current rate (%pa)	4-qrtr change (bp)		Last change	Next mtg	Forecast next change	Forecast (%pa)				
				Last	Next				Mar 21	Jun 21	Sep 21	Dec 21	Mar 22
Global			1.22	-27	0				1.22	1.26	1.28	1.27	1.27
excluding US			1.59	19	0				1.59	1.65	1.68	1.66	1.66
Developed			-0.02	-18	0				-0.02	-0.02	-0.02	-0.02	-0.02
Emerging			3.13	-44	0				3.13	3.24	3.29	3.25	3.25
Latin America			2.76	-175	0				2.76	3.34	3.83	4.13	4.14
EMEA EM			5.36	57	0				5.36	5.55	5.47	4.98	4.83
EM Asia			2.75	-41	0				2.75	2.75	2.75	2.75	2.77
The Americas			0.61	-29	0				0.61	0.70	0.77	0.81	0.81
United States	Fed funds		0.25	0	0	15 Mar 20 (-100bp)	28 Apr 21	On hold	0.25	0.25	0.25	0.25	0.25
Canada	O/N rate		0.25	-50	0	27 Mar 20 (-50bp)	21 Apr 21	On hold	0.25	0.25	0.25	0.25	0.25
Brazil	SELIC O/N		2.75	-100	0	17 Mar 21 (+75bp)	5 May 21	May 21 (+75bp)	2.75	4.00	5.00	5.50	5.50
Mexico	Repo rate		4.00	-308	0	11 Feb 21 (-25bp)	<u>25 Mar 21</u>	Feb 23 (+25bp)	4.00	4.00	4.00	4.00	4.00
Chile	Disc rate		0.50	-50	0	31 Mar 20 (-50bp)	30 Mar 21	4Q 21 (+25bp)	0.50	0.50	0.50	0.75	0.75
Colombia	Repo rate		1.75	-250	0	25 Sep 20 (-25bp)	<u>26 Mar 21</u>	3Q 21 (+25bp)	1.75	1.75	2.00	2.50	2.50
Peru	Reference		0.25	-100	0	9 Apr 20 (-100bp)	8 Apr 21	1Q 22 (+25bp)	0.25	0.25	0.25	0.25	0.50
Europe/Africa			0.81	-14	0				0.81	0.85	0.84	0.74	0.71
Euro area	Depo rate		-0.50	0	0	12 Sep 19 (-10bp)	22 Apr 21	On hold	-0.50	-0.50	-0.50	-0.50	-0.50
United Kingdom	Bank rate		0.10	0	0	19 Mar 20 (-15bp)	6 May 21	On hold	0.10	0.10	0.10	0.10	0.10
Norway	Dep rate		0.00	-100	0	7 May 20 (-25bp)	6 May 21	3Q21 (+25bp)	0.00	0.00	0.25	0.25	0.50
Sweden	Repo rate		0.00	0	0	19 Dec 19 (+25bp)	27 Apr 21	On hold	0.00	0.00	0.00	0.00	0.00
Czech Republic	2-wk repo		0.25	-150	0	7 May 20 (-75bp)	<u>24 Mar 21</u>	4Q 21 (+25bp)	0.25	0.25	0.25	0.50	0.50
Hungary	Base rate		0.60	-30	0	21 Jul 20 (-15bp)	<u>23 Mar 21</u>	On hold	0.60	0.60	0.60	0.60	0.60
Israel	Base rate		0.10	-15	0	6 Apr 20 (-15bp)	19 Apr 21	On hold	0.10	0.10	0.10	0.10	0.10
Poland	7-day interv		0.10	-90	0	28 May 20 (-40bp)	7 Apr 21	4Q 22 (+15bp)	0.10	0.10	0.10	0.10	0.10
Romania	Base rate		1.25	-125	0	15 Jan 21 (-25bp)	-	2Q 22 (+25bp)	1.25	1.25	1.25	1.25	1.25
Russia	Key pol rate		4.50	-150	0	19 Mar 21 (+25bp)	23 Apr 21	Apr 21 (+25bp)	4.50	5.00	5.25	5.25	5.25
South Africa	Repo rate		3.50	-175	0	23 Jul 20 (-25bp)	<u>25 Mar 21</u>	Mar 22 (+25bp)	3.50	3.50	3.50	3.50	3.75
Turkey	1-wk repo		19.00	925	0	18 Mar 21 (+200bp)	15 Apr 21	Sep 21 (-100bp)	19.00	19.00	18.00	15.00	14.00
Asia/Pacific			2.10	-34	0				2.10	2.10	2.10	2.09	2.11
Australia	Cash rate		0.10	-40	0	4 Nov 20 (-15bp)	6 Apr 21	On hold	0.10	0.10	0.10	0.10	0.10
New Zealand	Cash rate		0.25	0	0	15 Mar 20 (-75bp)	14 Apr 21	Nov 21 (-25bp)	0.25	0.25	0.25	0.00	0.00
Japan	Pol rate IOER ¹		-0.10	-5	0	28 Jan 16 (-20bp)	26 Apr 21	On hold	-0.10	-0.10	-0.10	-0.10	-0.10
Hong Kong	Disc. wndw		0.50	0	0	3 Mar 20 (-50bp)	-	On hold	0.50	0.50	0.50	0.50	0.50
China	1-yr MLF		2.95	-20	0	15 Apr 20 (-20bp)	-	On hold	2.95	2.95	2.95	2.95	2.95
Korea	Base rate		0.50	-25	0	28 May 20 (-25bp)	15 Apr 21	1Q 22 (+25bp)	0.50	0.50	0.50	0.50	0.75
Indonesia	BI RRR		3.50	-125	0	18 Feb 21 (-25bp)	20 Apr 21	On hold	3.50	3.50	3.50	3.50	3.50
India	Repo rate		4.00	-115	0	22 May 20 (-40bp)	7 Apr 21	On hold	4.00	4.00	4.00	4.00	4.00
Malaysia	O/N rate		1.75	-75	0	7 Jul 20 (-25bp)	6 May 21	On hold	1.75	1.75	1.75	1.75	1.75
Philippines	Rev repo		2.00	-125	0	19 Nov (-25bp)	<u>25 Mar 21</u>	On hold	2.00	2.00	2.00	2.00	2.00
Thailand	1-day repo		0.50	-50	0	20 May 20 (-25bp)	<u>24 Mar 21</u>	On hold	0.50	0.50	0.50	0.50	0.50
Taiwan	Official disc.		1.125	0	0	19 Mar 20 (-25bp)	17 Jun 21	1Q 22 (+13bp)	1.13	1.13	1.13	1.13	1.25

Source: J.P. Morgan. ¹ BoJ sets the policy rate on IOER (O/N) and targets 10-year JGB yields as policy guidance. Bold denotes move since last GDW and forecast changes. Underline denotes policy meeting during upcoming week. Aggregates are GDP-weighted averages. Any long-form nomenclature for references to China; Hong Kong; and Taiwan within this research material is Mainland China; Hong Kong SAR (China) and Taiwan (China).

Nowcast global GDP 1Q: Good Times Bad Times

Our forecast for 1Q21 global GDP growth ticked up to 2.5% ar this week. The global outlook has steadily climbed 1.4%-pts over the past six weeks as activity data through the second wave have come in stronger than expected on balance (Figure 1). Still, at 2.5% ar, our forecast implies a sharp deceleration from the boomy 7.4% ar pace recorded last quarter. The second wave has weighed heavily on consumers as evidenced by four consecutive monthly contractions in global retail sales through February. At the same time, construction and business spending on capital equipment have been remarkably resilient. On the week, we revised 1Q growth higher in Canada, Colombia, Germany, and New Zealand. However, difficulties in containing new COVID-19 cases across Europe have prompted a 5.5%-pt downgrade to our 2Q forecast for the Euro area. We will know more about developing sectoral and regional divergences in performance next week with the release of the March DM flash PMIs.

Figure 1: J.P. Morgan global GDP

% change saar

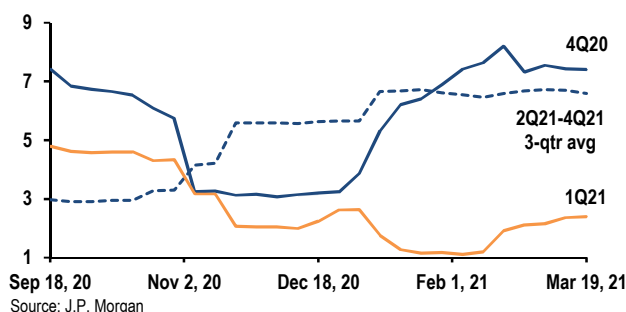
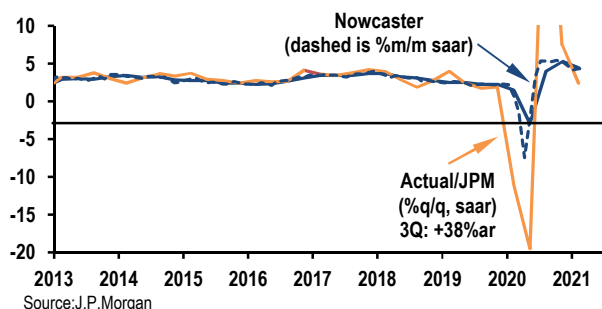


Figure 2: Global real GDP

%q/q, saar; J.P. Morgan projection and Nowcaster through 1Q21



Our top-down global nowcaster for tracking 1Q global growth edged down 0.2%-pt to 4.4% ar this week (Figure 2). The top-down nowcaster is still tracking well above our official forecast. The nowcaster sent the right signal of upside risk through all of 4Q20. This week, the aggregate of our bottom-up nowcasters reversed last week's dramatic 2.2%-pt climb by

plunging 2.3%-pts to 1.4% ar, below the official forecast (Table 1). This drop owes almost entirely to China, where the nowcaster fell 8%-pts in response to this week's disappointing Jan/Feb activity data. After soaring 9.1%-pts on strong trade data last week, the China nowcaster is up roughly 1%-pt over the past two weeks. Although the majority of our country-level nowcasters suggest upside risk, for the three largest economies (China, EMU, and the US) the nowcaster projects slower growth than the official outlook (Figure 3).

Table 1: Real GDP

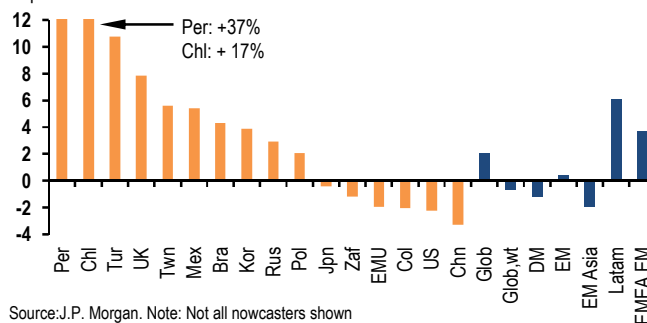
%q/q, saar. Underline indicates J.P. Morgan forecast

	4Q20		1Q21	
	Actual/Fcst	Nowcast	Forecast	Nowcast
Global	<u>7.4</u>	5.2	<u>2.5</u>	4.4
Weighted Avg*	<u>6.6</u>	7.1	<u>2.1</u>	1.4
Developed*	<u>3.2</u>	5.6	<u>1.5</u>	0.3
US	4.1	7.3	<u>5.0</u>	2.7
EMU	-2.6	1.4	<u>-1.0</u>	-2.9
UK	<u>4.0</u>	-1.2	<u>-9.4</u>	-1.5
Canada	9.6	5.0	<u>2.0</u>	1.7
Japan	11.7	13.4	<u>-1.0</u>	-1.4
Emerging*	<u>12.7</u>	9.7	<u>3.1</u>	3.5
EM Asia*	<u>13.6</u>	8.6	<u>5.5</u>	3.6
China	14.9	8.9	6.0	2.7
Korea	5.0	7.2	<u>3.0</u>	6.9
Taiwan	5.8	5.7	<u>4.0</u>	9.6
Singapore	15.9	5.7	<u>1.0</u>	13.3
Latam*	<u>17.3</u>	15.2	<u>-3.0</u>	3.1
Brazil	13.3	9.6	<u>-5.8</u>	-1.5
Mexico	13.7	15.9	<u>-0.5</u>	4.9
Argentina	<u>20.0</u>	14.2	<u>0.0</u>	-1.5
Chile	27.7	22.8	<u>2.0</u>	19.2
Colombia	26.5	24.1	<u>3.5</u>	1.4
Peru	38.1	35.3	<u>-16.0</u>	21.4
EMEA EM*	<u>4.0</u>	8.7	<u>-0.1</u>	3.6
Poland	-2.8	9.3	<u>-0.9</u>	1.2
Hungary	5.6	3.3	<u>-2.5</u>	4.3
Czech Rep.	2.4	3.3	<u>0.0</u>	-3.4
Romania	20.7	13.0	<u>-2.5</u>	0.9
Russia	<u>2.2</u>	6.5	<u>2.0</u>	4.9
Turkey	6.9	9.5	<u>-3.9</u>	6.8
South Africa	6.3	19.4	<u>1.8</u>	0.6

* Aggregates are GDP weighted averages of constituents. Source: J.P. Morgan. Any long-form nomenclature for references to China; Hong Kong; and Taiwan within this research material is Mainland China; Hong Kong SAR (China); and Taiwan (China).

Figure 3: Risk bias, 1Q21

%-pts. Nowcast minus forecast



Source: J.P. Morgan. Note: Not all nowcasters shown

This week in our *Daily Economic Briefings*, we updated our tracking of February global auto sales and January global IP and retail sales (Table 2). Despite a small move up in February, global auto sales remain depressed at 6% below their pre-pandemic level. Global IP sustained steady growth in January, whereas global retail sales slid for a third consecutive month. We also discussed in detail the risks to our global GDP forecast as signaled by the nowcasters.

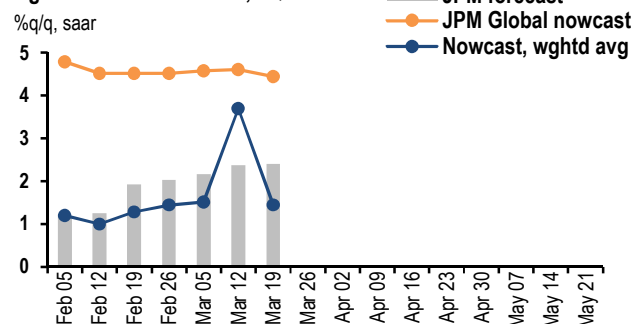
Table 2: J.P. Morgan global aggregates

%ch, sa (ar for qrt). PMIs are levels. Confidence is std.dev from 2010-present avg

	4Q20	1Q21	Dec20	Jan21	Feb21	Mar21
PMI, mfg	54.9	54.2	54.9	54.1	54.2	54.4
PMI, serv	52.3	52.6	51.8	51.6	52.8	53.3
IP	15.7	10.7	0.6	0.8	1.0	1.0
Retail sales	4.7	-1.1	-0.6	-0.1	0.7	0.4
Auto sales	10.7	-18.1	3.9	-6.2	-1.6	1.1
G-3 cap. ship.	26.0	14.4	-0.1	2.7	0.2	1.1
G-3 cap. orders	27.6	14.2	2.2	0.4	1.4	1.0
Cap. imports	35.9	3.8	2.0	<u>-5.0</u>	4.3	0.3
Bus conf	0.1	0.5	0.2	0.2	0.7	0.7
Cons conf	-0.4	-0.4	-0.4	-0.5	-0.3	-0.3
Nowcast (ar)	5.2	4.4	4.8	4.1	4.3	4.2

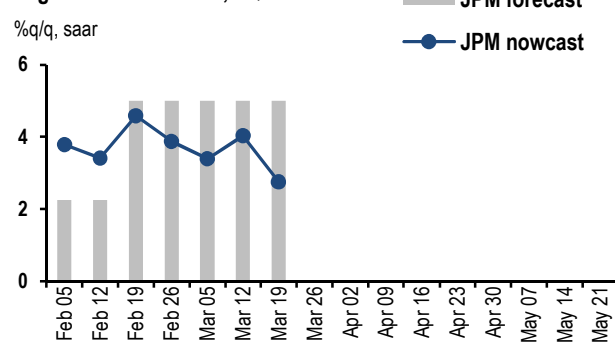
Note. Shaded values show forecasts computed by the Kalman filter estimates from the dynamic factor model. Underlined values are our estimates based on available data and our judgment. Source: J.P. Morgan, Markit, and national statistical agencies.

Figure 4: Global real GDP, 1Q21



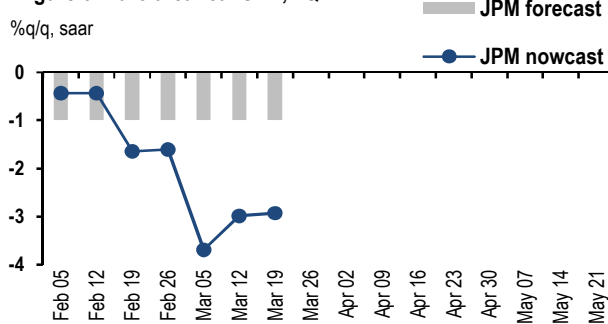
Source: J.P. Morgan

Figure 5: US real GDP, 1Q21



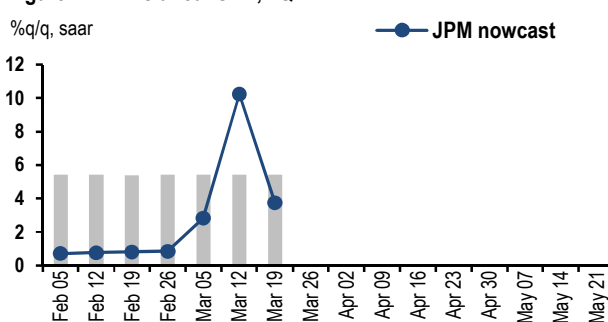
Source: J.P. Morgan

Figure 6: Euro area real GDP, 1Q21



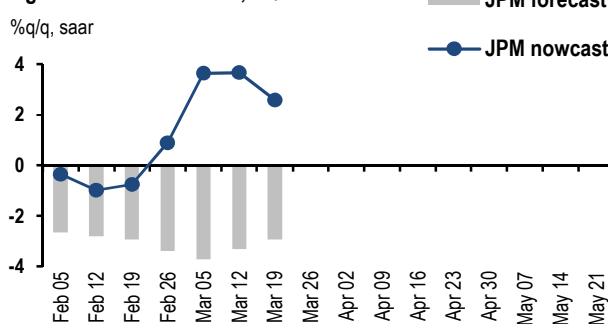
Source: J.P. Morgan

Figure 7: EM Asia real GDP, 1Q21



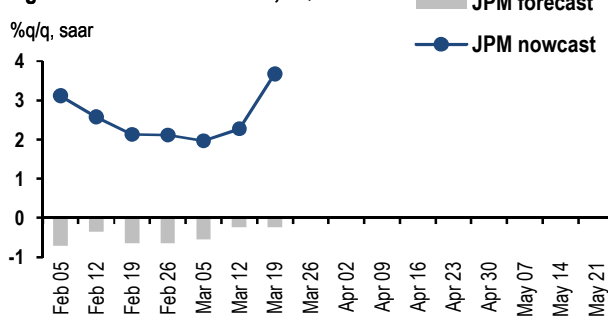
Source: J.P. Morgan

Figure 8: Latam real GDP, 1Q21



Source: J.P. Morgan

Figure 9: EMEA EM real GDP, 1Q21



Source: J.P. Morgan

* For primer on various Nowcasters, click here: [Global](#), [US](#), [EMU](#), [UK](#), [Japan](#), [EM](#).

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The other sting in the tail from fiscal policy -- higher taxes and the Value rotation

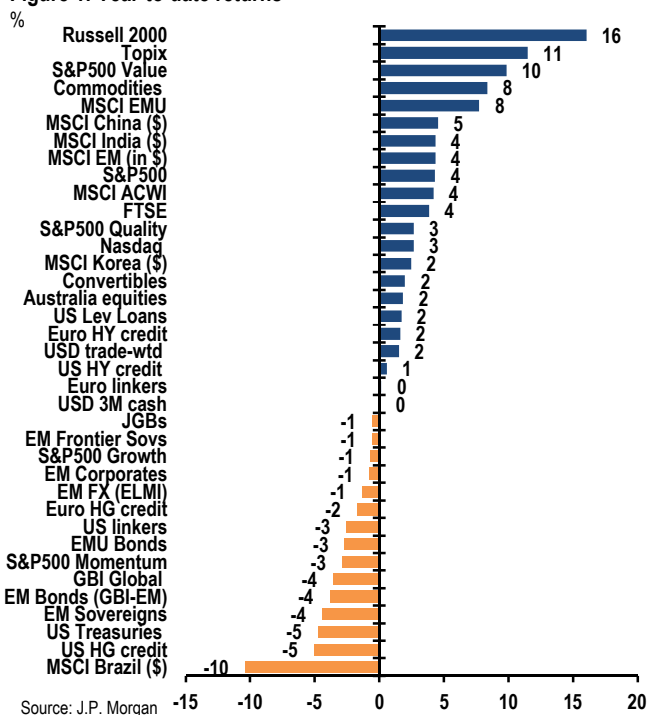
- **Cross-asset strategy:** This week's Fed reiteration that it won't hike for about three years despite extraordinary fiscal stimulus is extending the repricing of risk premia across financial markets. For us, the direction of risk premia is unambiguously higher in Bonds (high breakevens, steeper curves), but lower in Equities, HY Credit and Commodities (less earnings, default and inventory risk) and quite variable across various EM regions. At least EMs are hiking rates now, which will rebalance the equation for some of the vulnerable ones. With the repricing of yields and breakevens perhaps three-quarters complete versus our 2021 forecasts, the other sting in the tail from US fiscal policy could come from higher corporate, individual and capital gains taxes. Washington's tax take, which remains uncertain, will determine the yield and FX impact of an Infrastructure package. But regardless of how this plan is funded, the spending target is sector-specific. Hence, why owning Value stocks or Commodities ex Gold remains better than Bonds and FX to pre-position around this theme.
- **New trades:** Recommended trades for dislocated EM Bonds ([Goulden](#)) and Sovereign Credit ([Nguyen](#)); downgraded Brazil Equities to neutral and upgraded Mexico ([Cherman](#)); bought MSCI Mexico vs Brazil 105% calls ([Quigg](#)); entered tactical shorts in 5Yx5Y HICP ([Diamond](#)); proposed two option structures to play the EV transition theme in Europe ([Silvestrini](#)).
- **Must-read reports:** [The inflation outlook - thinking outside the triangle](#) (Feroi); [EM linkers in a reflationary world](#) (Siddiqui); [A guide to cross-asset investing as the US pursues overheating](#) (Normand); [ESG: Introducing the Human Capital Factor](#) (Chaudhry).
- **Economics:** The week revealed little new about the global economy, but a lot more about how central banks view and will respond to inflation. The Fed reaffirmed its view that an inflation bounce this year will be transitory, and no reason to hike even in 2023 (see [Feroi](#)). Some smaller DMs (Norway) issued hawkish guidance, while big EMs like Brazil, Turkey and Russia exceeded our expectations for rate hikes. Our economists now expect 25bp in Norway ([Alexandersson](#)), another 275bp in Brazil ([Fernandez](#)), 75bp in Russia ([Shal](#)) and moves from a few small EMs. That's far from a global tightening cycle. It's more a reflection of

policy divergence around the fringes for country-specific reasons.

- **Equities:** We have reviewed the case for SMid ([Lecubari](#)). Stay constructive on Equities with preference for Fins/Value/Cyclicals vs Tech/Growth/Defensives.
- **Bonds:** While near-term stabilization in yields is likely we retain a medium-term bearish bias. Last week we raised 4Q21 10Y UST forecasts to 1.95% ([Barry](#)).
- **Credit:** This week we revisit ten factors we thought would be important in shaping the credit market narrative this year ([Dulake](#)).
- **Currencies:** Keep a mix of USD longs vs low-yielders and selective global reflation longs but trim the next size of petro-exposure.
- **Commodities:** We revise our year-end gold price forecast \$100/oz lower to \$1,550 and maintain our \$1,350/oz target for 2022 ([Kaneva](#)).
- **Catalysts next week:** Fed speak (all-week); flash PMIs & Euro area consumer confidence (Mar 24th); SNB, Banxico, SARB & EU Council (Mar 25th); IFO & US PCE (Mar 26th).
- **JPM View video (Normand & Lupton):** [click here to watch](#).

This excerpt of The J.P. Morgan View has been adapted for Global Data Watch.

Figure 1: Year-to-date returns



This week delivered little new around the global growth and inflation narrative but indicated a lot about the Fed: apparently it will take more than a few trillion dollars of fiscal stimulus to trigger an inflation overshoot that warrants rate hikes before 2024. Such was the message from this week's FOMC meeting, which of course left rates unchanged but updated the Committee's quarterly economic projections to show a bounce in core inflation to 2.2% in 2021, followed by stability at 2% in 2022 and 2.1% in 2023. The Committee projected no rate hikes for the next three years based on the median, even if a few more members are inching towards a liftoff then (see [No, nay, never, no hikes](#) by Feroli from Mar 17th).

The market reaction to seemingly marginal motion in this quarterly set piece has run the range from minor to major. On the week, US inflation breakevens (5Y5Y swaps) and 10Y rates are only up 5 and 10bp, respectively, and Global Equities (MSCI ACWI) are down less than 2%. But anything generally thought of either dispassionately as expensive (Tech/Growth Equities) or disparagingly as speculative (SPACs, or thematic ETFs around innovation, social sentiment or green energy) is down 2-5%.

Oil experienced a 7% (two-sigma) decline, which if judged hardly based on this single episode, would mark a spectacular failure of diversification. Those like us who think that the greatest risk to markets in coming years is too much inflation rather than too much growth are relying on the Equity/Commodity correlation to turn negative eventually in a high-inflation environment, as it did in the 1970s and early 1980s ([chart 2](#)). The rationale is that inflation can threaten stocks in a few years via some combination of weaker margins and higher interest rates, and that Commodities are just the asset class for taking exposure to high-momentum input prices. (Inflation breakevens are the asset class for taking low-volatility exposure to the output prices of a CPI basket.) So we aren't judging the insurance value of Commodities on a one-day move in the context a lot of several pieces of bearish fundamental news, including even a pick-up in Iranian crude shipments (see today's [Oil Markets Weekly](#) by Kaneva). This inflation cycle will pass through several phases over many years, and we suspect that real assets like Commodities will deliver over most of those even if they fail in some episodes.

The broader dynamic moving markets this week – and indeed for about two months as the US has aimed every higher on fiscal stimulus – is how much risk premium to price for higher inflation and the Fed's reaction function. Chair Powell, like his predecessors Bernanke and Yellen over the past decade, continues to remind observers not to read too much into a dot plot, even though the Fed publishes such pro-

jections in the interest of transparency. And what is becoming more apparent to anyone looking inside the glass box is that most FOMC members do not believe a regime shift in US fiscal policy towards running extraordinary deficits outside of recessions will generate meaningful price pressures for at least three years.

The FOMC may be proven correct, and JPM Economics indeed thinks that they will (see [The US inflation outlook: thinking beyond the triangle](#) by Feroli from Mar 12th). **But when policymakers take chances, markets should require a range of risk premia.** The first risk premium is for an inflation overshoot, some but not all of which is in the price ([chart 3](#)). US 10Y breakevens have risen to slightly above-average levels of 2.3% (vs 2% average), but 5Y5Y inflation swap breakevens are still below their decade average (2.35% currently vs 2.6% average). More importantly, neither one of these breakeven rates is fully consistent with expectations of an overshoot in core PCE, after controlling for the typical 30bp spread between headline CPI used to price linkers and core PCE targeted by the Fed. And the Treasury curve slope of about 170bp (from cash to 10Y rates) is still catching up to the level of breakevens ([chart 3](#)). Hence why linkers are still worth owning, and why both the rise in yields and steepening of the curve are incomplete, even if money market expectations for early-to-mid 2023 Fed hikes look too aggressive.

But beyond DM Bonds and linkers, the dynamic is more of offsetting moves in risk premia rather than a clear need for all to rise. Consider the forces in the **Emerging Markets complex**. A rising US rate environment stresses high-debt sovereigns via a higher refinancing burden that increases uncertainty (wider spreads, weaker currency, lower equity multiple), though some EMs will benefit from higher commodity prices, a boom in global manufacturing or an equity factor rotation into Value (tighter spreads, stronger currency, higher multiple). In practice, the need for a higher risk premium tends to dominate when US rate moves are large and moderate-to-high volatility, as is the case now. The good news for EM is the following: after this week's rate hikes in a few EMs, risk premia at the short end, which matter for currencies, are en route to more normal levels for some (Brazil, Russia) and are very high in others (Turkey). The EM complex may only be a low Sharpe ratio trade over the next year or two because of intermittent bouts of USD strength, but it should still deliver alpha ([chart 5](#)).

The offsetting moves in risk premia for DM Credit and Equities are even stronger than in the EM complex, in that earnings momentum dominates the impact of higher rates on equity multiples or financing costs early in an expansion. Hence why higher equity markets and tighter credit spreads accompany about 80% of bond market sell-offs

when measured over the entire trough-to-peak move in rates, even if intra-month drawdown occurs. Our confidence in the norm holding carries two caveats. One is that this view is more about more diversified indices (MSCI ACWI, S&P500) than sectors which have high valuations (Tech) or are bond proxies (Staples, Utilities, Real Estate). The other is that the positive view on Credit centers on spread rather than total return, since the latter suffers from the curse of the starting point. Since HG and HY Credit entered 2021 at below-average spreads and near record-low yields, they were almost always destined for their worst-ever total returns during global reflation simply due to duration ([chart 6](#)). Hence why the only Credit sectors we've wanted to own this year was US High Yield.

Our base case is that risk premia at the center of market stress – the ones for the US 10Y and breakevens – are much closer to the end of their 2021 adjustment than at their beginning. If we are right, then the following patterns should emerge: Equities will resume a lower-volatility uptrend; DM and EM Credit will start earning their running yield after their weeks of capital losses; and the EM complex (Equities, Bonds, Currencies) will outperform until US Treasuries gear up for their next test (tapering, if that process is not fully in the price by then).

The main wildcard to this baseline is the one we began discussing last week -- Biden's infrastructure package could be large (at least \$2trn) and mostly debt-financed, thus triggering a further rethink on inflation, the timing of the first Fed hike and the path of increases thereafter (see [\\$1.9trn down, \\$2trn to go – first thoughts on what Biden's infrastructure plan could mean for markets](#) in the March 12th J.P. Morgan View). That's the traditional sting in the tail in those rare instances when fiscal policy is eased as the economy is already at full employment (as with early 2018 lifting of US federal spending caps) or on track for it.

But what if the sting comes on the tax side, given the range of revenue measures Biden discussed during the campaign and which are being resurrected as financing mechanisms for an infrastructure package? These include raising the corporate tax rate from 21% to 28%, but still leaving it below the pre-Trump level of 35%; raising the top marginal tax rate from 37% to its pre-Trump level of 39.6%; and taxing capital gains and dividends at the ordinary income tax rate, so 39.6% for the highest earners ([chart 7](#)). Those three measures alone could raise about \$1.6trn in revenue ([table 1](#)) given the revenue impact estimates produced annually by the Congressional Budget Office in their quixotically-entitled [Options for reducing the deficit](#). (It's such a hopeful title because attempts to reduce the deficit via cuts in discretionary spending or tax increases are so rare in the US.) An even

more ambitious program could be financed if the range of measures were expanded to include measures such as payroll taxes (\$900bn over a decade), fuel taxes (\$230bn) and a carbon tax (\$1trn).

We don't have a house view on the financing mix of an eventual infrastructure bill, but all public comments point to higher taxes in core areas of corporate, high-income household and capital gains rate. So hypothetically, 80% of a \$2trn package could be funded, implying much less pressure on rates from issuance than the December 2020 and March 2021 stimulus packages have induced. Thus this package could prove relatively benign for Bonds, the dollar and Gold than pure stimulus packages have been. The Equity impact is much more interesting to ponder, given that higher corporate taxes would present a drag on earnings growth and buybacks, whereas a hike in capital gains taxes could trigger pre-emptive selling before the tax year ends.

A few notes from JPM Research issued last year during election season analyzed these impacts for the overall market and for some sub-sectors like Asset Managers. Two general conclusions are worth repeating, even if the specifics of Biden's next package are still unknown. One is that the EPS drag from any increase in corporate taxes would be occurring in a year of extraordinary growth and profits momentum due to post-COVID reopening and previous stimulus measures. Another is that tax-related selling from rare events like hikes in the capital gains rate (last increases were in 1987 and 1993) has only had a modest (under 5% drawdown), intra-month impact. For details, see [Election implications for US Equities, Democrat agenda winners and losers](#) by Lakos from July 2020; [Flows & Liquidity: The impact from a potential US capital gains tax increase](#) by Panigirtzoglou from October 2020; and [US Brokers, Asset Managers & Exchanges: States start to implement higher taxes on the rich -- The outlook for tax-managed investing strengthens](#) plus [US Asset Managers: Concerns over tax changes for the wealthy could drive fund allocation changes](#) by Worthington from October 2020.

Even knowing nothing specific about this Infrastructure package, the theme still seems most tradeable in Equities via Value versus Growth rotation and in Commodities than in bond duration, credit spreads or currencies. The size of this package net of tax revenues will determine the yield impact and the contagion to the dollar, which is why pre-positioning in these markets on this factor alone offers mediocre risk-reward, in our view. But regardless of how spending is financed, its direction will be towards sectors that tend to be associated with the Value style (Materials/Metals & Mining, Energy) and the underlying Commodities. As noted in last week's View, none of these markets trade at a pre-

mium to their long-term P/E or real commodity prices. And if there are Equities to be sold in December ahead of a possible increase in capital gains taxes, they are more likely to be beneficiaries of the last decade's cycle (Growth/Tech) than those which have only outperformed this year (Value/traditional Cyclical).

Equities

Global equity markets consolidated near all-time highs this week, supported by a dovish Fed. Bond yields moved further higher in the US, driving Value vs Momentum up. Financials and Autos performed well, but Energy and Miners were the worst performers this week. Regionally, Japan and Europe outperformed, while the US lagged.

Our Global equity strategists maintain a constructive equities stance and a pro-risk internal positioning, with preference for Financials/Value/Cyclicals vs Tech/Growth/Defensives. Within this, they focus their longs toward Financials and the Consumer reopening trade, relative to Miners/Commodities, which could in their view fade as USD strengthens and China momentum peaks. Regionally, they favor Eurozone and Japan over US, in line with their preference for Value over Growth and Banks over Tech. They address incoming around whether investors should start booking profits in Cyclicals/Banks and buy back Defensives like Tech, Staples and Healthcare. Indeed at almost 60% from the low, the Cyclicals/Defensives outperformance ranks near the top of the past recovery moves. However, for the actual unwind, one needs to consider: 1) Bond yields direction. The strategists do not believe that the upmove in yields is exhausted. The Cyc/Def trade is coincident with yields, i.e. as long as yields are moving up, Cyclicals should not be sold. 2) Cycle is somewhat desynchronized, but the general growth and earnings backdrop is likely to be firm into summer. The Cyclical/Defensive trade didn't tend to peak out until the PMIs peaked and earnings momentum for Cyclicals will continue accelerating over the next few quarters. The valuation case is much more challenging. Cyclicals don't score well on this front, but Value continues to look very appealing. Put together, the bulk of the Cyc/Def move might be behind us, but it might be premature to position for a reversal. For that, one needs to see peaking PMIs, weakening relative earnings and an end to rising bond yields. Our strategists see further upside in Banks vs Tech, and for the general fading of risk-on internals stance they would wait till nearer Q4. (See [Equity Strategy](#) by Matejka et al from Mar 15th).

Our SMid strategists have revisited "The Case for SMid". They remain convinced that SMid-Caps will dwarf the returns of most other asset classes for decades to come. The number of dedicated SMid funds in the world keeps growing, with SMid funds as percentage of all actively managed funds

also on the rise, and with Large- and All-Cap funds investing a rising share of their AUM in SMid-Caps too despite mega caps having increased their weight on large-cap benchmarks (see [The Case for SMid](#) by Lecubarri et al from Mar 17th).

Bonds

Bonds sold off this week with the US underperforming.

This week's FOMC meeting saw the Fed acknowledge better incoming data, while keeping its accommodative policy settings in place. This was reinforced by a set of forecasts with the median unemployment rate at 3.5% and core PCE at 2.1% in 2023 even as the median participant sees rates unchanged, and the Fed Chair downplaying the significance of an increase in the number of participants projecting a hike by 2023. Our strategists see a prospect of a near-term stabilization in yields as valuations look cheap and there is a prospect of rebalancing-related demand into quarter-end. Over the medium-term, they retain a bearish bias as reflected in last week's revision in 10y yield forecasts to 1.95% by year-end. They stay long 5Yx5Y inflation swaps.

In the **Euro area**, a recent tightening in lockdowns poses downward risks to the near-term growth outlook and we see a more significant easing in restrictions pushed back to May. Our strategists continue to see 10Y German yields in a -40bp/-25bp range over coming weeks and have a bullish near term bias, while retaining bearish medium-term exposure via options in 1s/10s EUR weighted bear steepeners. Intra-EMU, they keep 10s/30s Italy flatteners and stay long 10Y Spain vs Germany.

In the **UK**, the BoE kept policy unchanged but set the scene for forecast upgrades in May implying some policy tightening is coming. Our strategists stay neutral on duration with a medium-term bearish bias, and hold tactical 10s/30s steepeners. In **Japan**, the fine-tuning announced in the BoJ's assessment was broadly in line with expectations. Our strategists retain an outlook of a gradual steepening in the JGB curve and see a prospect of a higher beta of JGB yields to global yields at the long end. In **Australia**, the RBA continues to push back on pricing for hikes. Our strategists stay long 10Y ACGBs vs. USTs and keep AUD 3s/10s EFP box steepeners.

In **EM**, local bond yields have drifted higher along with DM rates. The gradual tilt among EM central banks in a more hawkish direction continued this week, with the COPOM in Brazil increasing its policy rate by a larger than expected 75bp with a hawkish statement. Our [EM Client Survey](#) for March suggests that risk reductions in local markets continues with OW EM rates positions declining for a third month in a row while EM FX exposure was nearly halved. Our strategists remain UW local duration overall. In EM Asia they are UW via Malaysia, partially offset by OW China. They remain

neutral in EMEA EM with UW Czech and Poland offset by OW Russia. And in Latam they are UW via Peru and Chile, partially offset with OW Mexico ([EM Local Markets Round-up](#) by Harrison from Mar 15th).

Credit

Our Global Credit strategists use this edition of Crisis Watch to revisit some of the things they thought would shape 2021. (see [Crisis Watch XL: The Story so far](#) by Dulake et al from Mar 18th)

They use the 10 subtitles from the original note, even if the tense or context now seems a little off nearly three months later. 1) To what extent have we seen a drawdown on full-year performance?; 2) The Color Purple and the Georgia Senate race; 3) Will investors keep it simple or will they get complex in 2021?; 4) Will banks start to use their balance sheets aggressively in the pursuit of profitability?; 5) Do companies need to see a return to 100% of pre-COVID demand?; 6) Should companies tender the secured debt issued previously as part of rescue financing packages?; 7) “Zombies”: the US isn’t Europe . . . yet; 8) What happens to the cash on corporate balance sheets?; 9) What happens to all the cash raised by private equity?; 10) Are SPACs a different side of the same coin?

Currencies

It might be debatable how significant, dovish, or inflationary the Fed turned out to be this week, but the end result was a bearish steepening in US rates, lending the dollar broad support, and putting risk markets on the back foot. Moreover, any marginal shift in the Fed’s perceived reaction function, must be interpreted in the context of a growing divergence in monetary policy rhetoric and action. Our strategists have argued for this to be a growing driver of relative FX performance (see [Rate divergence makes a return to FX](#) by Meggyesi et al from Mar 10th). It is hard to argue the Fed as being particularly dovish, when in comparison the ECB last week upsized its pace of PEPP purchases and when RBA minutes this week made a more subtle reminder that it could do the same. The net result has been further rate divergence.

Beyond just different central bank reaction functions, the backdrop to this monetary policy/rate divergence is the increasing realization that the emergence from the pandemic will happen at considerably different pace across the world. Beyond unique US fiscal policy, there is a significant divergence in vaccine deployment across countries. In recent weeks Biden has materially accelerated the timeline, while at the same time Europe has faced another major speedbump. This divergence in vaccine deployment might imply that the difference in when countries achieve herd im-

munity could be measured in quarters, rather than just weeks or months.

With the backdrop of a forthcoming large infrastructure package to sustain US growth outperformance in the medium-term, the US remains in the vanguard in both the pace and follow-through in the exit from the pandemic, as well as in the rates repricing for eventual policy normalization. This will translate into continued yield support for the USD, especially against low yielders, and this exceptionalism will help generate the capital inflows to keep a widening C/A comfortably funded, a view this week’s TIC data helps reinforce. But US exceptionalism will continue to be accompanied by, and offset by ongoing global cyclical optimism. This will keep the FX macro backdrop in an unusual and less dollar-centric state, but not one that is necessarily untradeable. In the macro portfolio, the team continues to hold above-average level of risk, with a strategy of mixing USD longs versus low-yielders (JPY, EUR, CHF, and GBP) and selective global reflation longs in petro FX funded by non-dollar low yielders, albeit they are trimming the net size of the petro-exposure to reflect the recent choppiness in crude prices and risk markets more generally.

Commodities

Our strategists exited their bullish bias on gold late last July and have maintained this bearish year-end target over the last two-and-a-half quarters. While right on directionality, the pace of gold’s selloff over the first quarter has surprised even their bearish expectations as US rates continue to rebase higher. Looking forward, there is little to point towards a material reversal in the recent trend, and the market should continue to price in higher US yields over the balance of the year, weighing in turn on gold prices even more. Given the expectation for an enduring run higher in US real yields as rising nominals continue to outpace inflation expectations, the team now expects gold prices to fall more sharply over the balance of 2021, targeting a 4Q21 average of \$1,550/oz. Looking to 2022, they maintain their bearish forecast for an average of \$1,350/oz for the year as a whole as the Fed progresses with tapering its asset purchases, an adjustment that should commence later this year. (see [Precious Metals Update](#) by Kaneva et al from Mar 18th).

In Oil, a slate of bearish fundamental headlines reverberated through the market this week, although most likely there was a combination of factors that led to the large reprice in oil markets on Thursday. The global demand recovery from the pandemic has been uneven. On the demand tracking side, the latest Google data show that Ex-China demand-weighted mobility stalled last week at around 87% of a pre-pandemic baseline. Iranian oil exports to China have been increasing for some months now, as China has stepped up its

buying activity from the lows of the last year. Though not much has changed in the fundamental picture this week, the price move was likely accentuated by a washout of investor length which has been steadily rising since late last year.

However, the fundamental view has not changed. The sum of restrained supply by OPEC+, along with rising demand, should open a 1.8 mbd deficit gash in the oil market over the next three months, bringing OECD inventories to their 2015-2019 averages by June 2021. This path suggests that the Brent oil price should average \$61 in 1Q, resetting to \$68-69 over the middle quarters of the year, break above \$70 in September and exit the year at around \$74. Brent prices peaking at \$80 in 2Q22, before resetting back to below \$70 by year-end 2022. (see [Oil Markets Weekly](#) by Kaneva et al from Mar 19th).

Cross-asset forecasts & strategy

Rates	Current	Jun-21	Sep-21	Dec-21	Mar-22
US (Fed funds)	0.07	0.00	0.00	0.00	0.00
10-year yields	1.68	1.75	1.85	1.95	2.05
Euro area (depo)	-0.50	-0.50	-0.50	-0.50	-0.50
10-year yields	-0.30	-0.35	-0.25	-0.20	-0.10
Italy-Germany 10Y (bp)	96	80	75	85	90
Spain-Germany 10Y (bp)	64	55	50	55	55
United Kingdom (repo)	0.10	0.10	0.10	0.10	0.10
10-year yields	0.82	0.95	1.05	1.15	1.20
Japan (call rate)	-0.10	-0.10	-0.10	-0.10	-0.10
10-year yields	0.12	0.10	0.15	0.15	0.15
EM Local (GBI-EM yield)	4.94			4.29	
Currencies	Current	Jun-21	Sep-21	Dec-21	Mar-22
JPM USD Index	119	119	119	119	120
EUR/USD	1.19	1.18	1.17	1.17	1.16
USD/JPY	109	107	106	105	104
GBP/USD	1.39	1.39	1.38	1.37	1.36
AUD/USD	0.78	0.74	0.72	0.71	0.71
USD/CNY	6.51	6.35	6.35	6.35	6.35
USD/KRW	1131	1110	1100	1090	1090
USD/MXN	20.32	20.75	21.25	21.50	21.75
USD/BRL	5.56	5.55	5.50	5.45	5.40
USD/TRY	7.24	7.75	8.00	8.25	8.50
USD/ZAR	14.69	15.50	15.75	16.00	16.25
Commodities	Current	Mar-21	Jun-21	Sep-21	Dec-21
Brent (\$/bbl, qtr end)	63	67	67	73	74
WTI (\$/bbl, qtr end)	60	65	65	70	71
Gold (\$/oz, qtr avg)	1,739	1,790	1,650	1,590	1,550
Copper (\$/ton, qtr avg)	9,073	7,700	7,000	6,800	6,500
Aluminum (\$/ton, qtr avg)	2,197	2,070	1,900	1,800	1,740
Iron ore (US\$/dt, qtr avg)	165	169	170	160	150
Wheat (\$/bu, qtr avg)	6.3	6.2	6.1	6.0	6.3
Soybeans (\$/bu, qtr avg)	14.0	10.7	10.5	10.5	10.5

Source: Bloomberg, Datastream, J. P. Morgan

Credit		Current	Dec-21
US High Grade (bp over UST)	JPM JULI	124	110
Euro High Grade (bp over Bunds)	iBoxx HG	100	90
US High Yield (bp vs. UST)	JPM HY	433	425
US Lev Loans (bp vs. 3Y Index)	JPM LL	440	450
Euro High Yield (bp over Bunds)	iBoxx HY	327	300
EM Sovereigns (bp vs. UST)	JPM EMBIGD	354	347
EM Corporates (bp vs. UST)	JPM CEMBI	246	225
Equities		Current	Dec-21
S&P 500		3,915	4,400
MSCI Europe		1,716	1,830
MSCI Eurozone		246	268
FTSE 100		6,719	7,100
Topix		2,012	1,900
MSCI EM (\$)		1,347	1,450
MSCI China		114	125
MSCI Korea		981	900
MSCI Taiwan		653	605
MSCI India		1,658	1,430
Brazil (Ibovespa)		114,835	134,000
Mexico (MEXBOL)		47,572	46,300
MSCI South Africa		1,511	1,795

Equity sector recommendations & year-to-date returns

	US	Europe	Japan	EM
Energy	30%	OW	19%	N
Materials	8%	N	11%	OW
Industrials	8%	N	9%	N
Discretionary	1%	OW	12%	OW
Staples	-2%	UW	0%	UW
Healthcare	1%	OW	1%	-2%
Financials	17%	OW	16%	OW
Technology	-1%	OW	6%	N
Comm Services	8%	N	10%	UW
Utilities	-1%	UW	-4%	OW
Real Estate	6%	UW	-3%	UW

Core strategic and tactical recommendations by asset class

	Strategic (6M to 2Y trades)	Tactical (1M to 6M trades)
Asset allocation	Above-average OW of DM Equities & HY Credit vs Cash/Bonds; small OW of EM complex – Equities, Sovereigns & Corporates but short duration and neutral FX	No major changes in February edition of Global Asset Allocation
Equities	Country: biased towards US after Value rotation is more complete Sector: OW Healthcare; UW Staples, Utilities, REITs Style: biased towards OW Growth again	Country: OW EM ex China, EMU & Japan vs US, UK, rest of world Sector: OW Cyclical (Discretionary, Financials, Energy) Style: OW Value
Bonds	DM Duration: Neutral EM Duration: OW China, Russia, Mexico, & UW Chile, Peru, Czech, Poland, Malaysia in GBI-EM.	DM Duration: neutral DM Curve: neutral DM Inflation: long in US (5Y5Y) & AU (1Y), short Euros (5Y5Y) DM Spread: OW Spain (10Y) vs GE; OW AU (10Y) vs US US HY: OW CCCs & Bs vs BBs
Credit	US HG: OW Yankee Banks, Energy, Utilities, Cap Goods & Telecoms; UW US Banks, Healthcare, Tech & Retail US HY: OW Gaming, Transport; UW Healthcare, Tech, Cable, Paper, Industrials Euro HG: OW Autos, Toll Roads & Mail, Transport; UW Healthcare, Chemicals, Tech, Media Euro HY: OW Transport, Paper, Retail; UW Chemicals, Telecoms	Euro HG: Long AT1, sold protection on Itraxx Main super senior Euro HY: Long Itraxx Crossover vs Sub Financials EM Sovereigns: OW Pemex, Nigeria, Egypt EM Corporates: favour HY over HG globally; OW China (Property), CEEMEA Utilities, Latam Commodities
Currencies	Few strategic trades; most currency positions are tactical	Long USD vs EUR, CHF, GBP & JPY; short EUR vs NOK & RUB; long TRY vs USD; OW RUB, MXN, CNY & CZK in GBI-EM
Commodities	Long JPMCCI Agricultural sub-index	Long Oil, short Gold & neutral Base Metals

Source: J.P. Morgan flagship weekly and monthly strategy publications, including [Global Asset Allocation](#), available on www.jpmm.com. Red shading indicates higher-conviction view

Economic Research Note

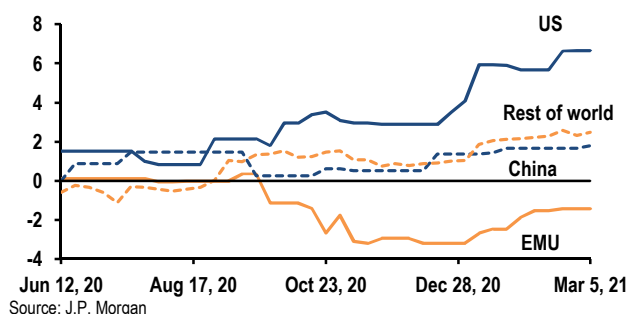
A Global Phillips curve in FRI clothing

- Upward revisions to GDP have been accompanied by higher inflation forecasts
- Rising energy prices and EM FX depreciation explain much of the recent rise in our CPI FRI
- A flat FRI Phillips curve was evident over the past expansion when growth revisions were modest
- Experience suggests recent sharp swings in GDP FRIs require a larger reassessment of 2021 inflation forecasts

Surprised by the resilience of the global economy and the size of US fiscal stimulus, we have significantly raised global growth forecasts in recent months (Figure 1). We have also been revising up our forecasts for inflation. Based on our forecast revision indices (FRIs), we can estimate a crude global Phillips curve relationship for these changes. Since the publication of our [2021 Global Outlook](#) last November, our global growth FRI has moved up by 2.2%-pts, a record for the series that starts in 2002. Over this period, the global FRI CPI is up 0.6%-pt (Figure 2). This 0.28%-pt move in the CPI FRI for every 1%-pt move in the GDP FRI (the “beta”) is roughly consistent with the historical relationship, which points to an average 0.39%-pt move higher in inflation for each percentage point increase in GDP growth.

Figure 1: J.P. Morgan Forecast Revision Index, Real GDP

%pt, cum rev to 4qtr rolling growth (Q-1 to Q+2)

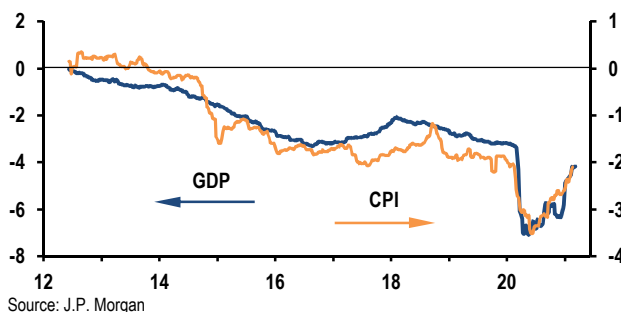


A more careful examination of the rise in the global inflation FRI points to the significant role of higher global oil prices in these revisions: At least half of the increase in the global headline inflation FRI can be directly linked to oil price increases. Meanwhile our US and DM core inflation FRI has remained unchanged despite larger-than-average upward growth revisions. This may not be surprising as in the past decade inflation forecasts have been sensitive to commodity and currency moves but showed little-to-no impact from

growth—echoing the conventional wisdom of a flat Phillips curve. However, there were unusually large inflation FRI swings in the face of last year’s dramatic growth changes. With global growth expected to bounce in the coming quarters (led by near-double-digit annualized gains in the US and Western Europe), there are good reasons to see growth pressures sustaining a steepening in the Phillips curve, thus requiring a further reassessment upward of inflation forecasts.

Figure 2: J.P. Morgan Forecast Revision Index

%pt, cum rev to 4qtr rolling growth; both scales

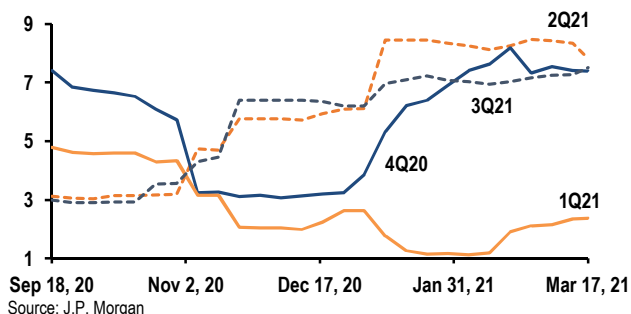


FRIs as a guide to view formation

In response to a series of upward revisions, the projected end-2021 GDP has moved up more than two percentage points over the past three months. This reassessment reflects stronger-than-expected data that have pushed up the tracking of 4Q20 growth as well as a belief that stronger growth in the middle quarters of the year will more than offset the second-wave drag this quarter (Figure 3).

Figure 3: J.P. Morgan global GDP

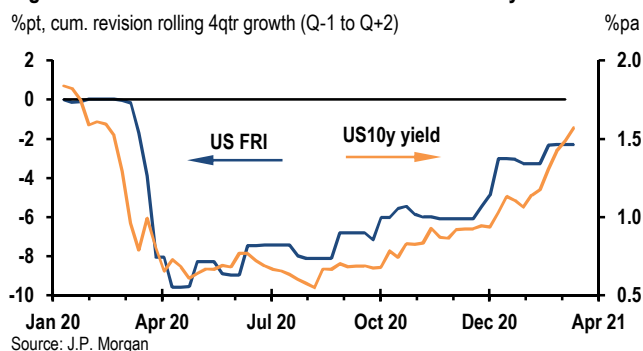
% change saar



To track forecast revisions to both growth and inflation in a more systematic way, we turn to our forecast revision indices of GDP and CPI inflation. The GDP FRI measures the cumulative revision in the rolling four-quarter growth forecast for Q+2 (i.e., Q-1 to Q+2), while the headline and core inflation FRIs measure the four-quarter rolling Q+3 (i.e., Q to Q+3) forecasts (the slight difference in look-ahead is because, while the lagged quarter is still very much a “forecast” for GDP, it is not so for inflation). These data are weekly and provide a

set of historical vintage real-time growth forecasts going back for nearly two decades. For methodology reports and analysis see “[Know thyself: Evaluating and using the J.P. Morgan economic forecasts](#)” for the GDP growth FRI and “[Know thyself: JPM Inflation Forecast Revision Index](#)” for the headline and core inflation FRI. The appendix provides DataQuery codes for users wishing to incorporate these indexes into their analysis or trading algorithms. The data are also available on Bloomberg (type JFRI*). As an example of the FRI’s usefulness, the US GDP growth FRI has helped track the over-100bp rise in the UST 10y yield since mid-2020 (Figure 4).

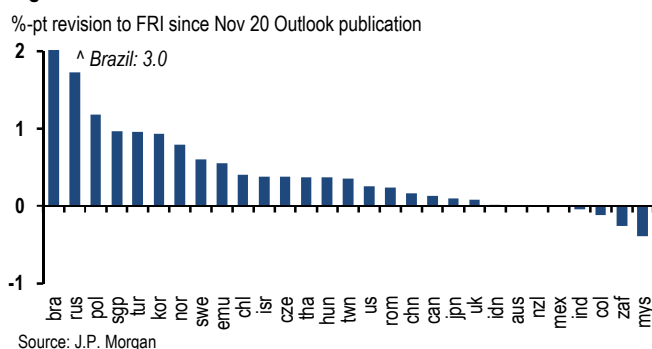
Figure 4: US GDP Forecast Revision Index and US 10 year



Inflation tracks growth in the headline

Last year’s large growth swings translated into significant moves in both our GDP and CPI FRIs, and the recent growth revisions have also been echoed in upward revisions to the inflation outlook. Over the 14 weeks since we published our [2021 Global Outlook](#), our global growth FRI has moved up 2.2%-pts, a record since 2002 (Table 1). Over this period, the global FRI CPI is up 0.6%-pt. This 0.28%-pt move in the CPI FRI for every 1%-pt move in the GDP FRI (the “beta”) is consistent with the historical relationship.

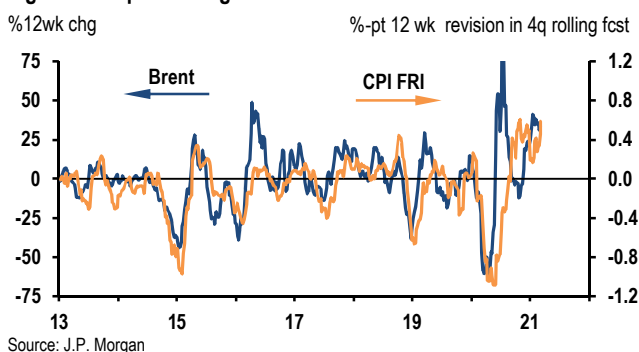
Figure 5: Revisions to inflation relative to GDP forecast



This message holds for DM and EM inflation revisions over this period as well. But greater variation can be seen at the national level (Table 1; Figure 5). For example, US GDP growth and CPI inflation have both been revised up sharply

but the growth move has been larger, generating a beta of 0.25. In the Euro area, the growth and inflation revisions were closer to the middle of the pack, but the inflation move yields a larger beta of 0.55. Brazil, Russia, and Turkey show the largest increases in inflation FRI relative to their GDP FRIs.

Figure 6: Oil price and global inflation forecast revision



Commodity prices have paralleled the large swings in both GDP growth and in our GDP FRIs. The sharp drop and recovery in oil prices has imparted a significant impulse to headline inflation rates around the world. Over the past 12 weeks, the price of oil has surged 34%. Given the usual tight relationship between oil prices and our inflation forecasts, the latest move looks able to explain much of the rise in our global inflation outlook (Figure 6). If right, this would suggest that the record upward revision to growth over the past few months has translated into little direct increase in our assessment of inflation.

Table 1: Forecast Revision Indexes, GDP and Inflation

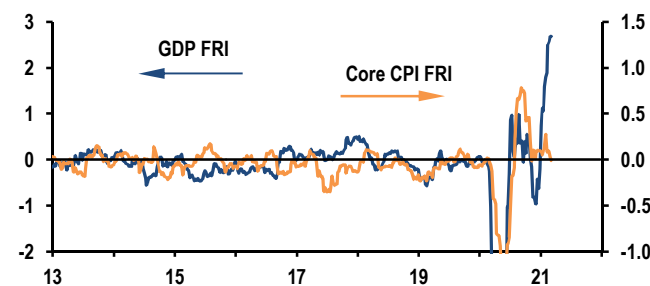
%pt change to FRI since Nov 20 Outlook publication				
	GDP	CPI	Core CPI	CPI / GDP
Global	2.2	0.6	...	0.28
Developed	2.6	0.7	0.0	0.27
US	3.8	0.9	-0.1	0.25
Euro area	1.5	0.8	0.3	0.55
Japan	2.0	0.2	-0.2	0.10
UK	2.6	0.2	0.0	0.08
Emerging	1.4	0.4	...	0.30
Latam	1.9	0.6	...	0.30
Brazil	0.6	1.9	...	3.01
Mexico	3.9	0.0	...	-0.01
EM Asia	1.3	0.2	...	0.18
China	1.2	0.2	...	0.16
India	2.4	-0.1	...	-0.04
Taiwan	1.4	0.5	...	0.35
Korea	1.1	1.0	...	0.93
EMEA EM	1.5	1.3	...	0.86
Poland	1.0	1.2	...	1.18
Romania	3.9	0.9	...	0.24
Russia	0.8	1.4	...	1.73
South Africa	0.4	-0.1	...	-0.26
Turkey	2.6	2.4	...	0.95

Source: J.P. Morgan; FRIs are the rolling 4qtr forecasts. Please note the long-form nomenclature for China and Taiwan is Mainland China and Taiwan (China).

The limited pass through of stronger growth to our inflation outlook can be seen more clearly in the DM, where we also have a history of core inflation forecasts that enable us to produce a DM core inflation FRI. Remarkably, DM core inflation forecasts have on average remained unchanged this year, despite the dramatic 2.7%-pts upward revisions to DM GDP growth the past three months (Figure 7).

Figure 7: GDP and core inflation forecast revisions, Developed Mkt

%-pt 12 wk revision in 4q rolling fcst; both scales



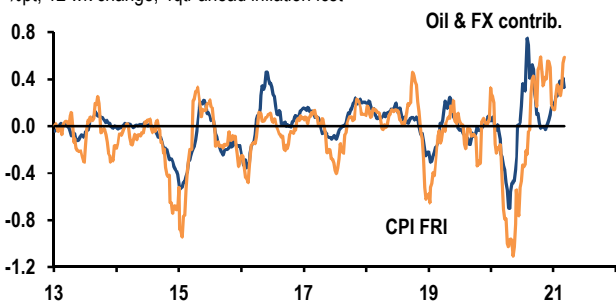
Source: J.P. Morgan

A Phillips curve built on FRIs

A more structural examination of our growth and inflation forecasts can be done using the Phillips curve model relating measures of slack to inflation. Traditionally, the Phillips curve regresses inflation on a measure of the output gap (the level of GDP relative to potential) and a set of supply shocks, including commodity prices and exchange rates. However, given that a revision to GDP translates one-for-one to a change in the output gap, we can also consider a Phillips curve in FRIs.

Figure 8: Global inflation Forecast Revision Index

%pt, 12 wk change; 4qtr ahead inflation fcst



Source: J.P. Morgan

The model results in Table 2 send a somewhat more tempered message than the one in Figure 6 from the prior section. According to the Phillips curve FRI estimated from 2012-2021, a 1%-pt move in the GDP FRI has translated into a 0.39%-pt move in our inflation outlook, even holding the price of oil and exchange rates fixed—indicative of a shallow but statistically positive-sloped Phillips curve. Both the oil price and the exchange rate have a significant impact. The exchange rate is

the DM NEER and its impact in the global model suggests a stronger DM currency basket is more inflationary for the EM than it is disinflationary for the DM. Controlling for moves in the GDP FRI, the model from Table 2 indicates that the surge in the price of oil (and some move in the DM NEER) explains half of the move in our global CPI FRI over the past 12 weeks (Figure 8).

Table 2: FRI Phillips curve

Regression of FRI for inflation, 4wk chg (%chg for oil and FX); (t-stat)

	2012-2021		...2012-2019	
	Global Headline	DM Core	Global Headline	DM Core
Constant	-0.01 (-1.1)	-0.01 (-1.5)	-0.02 (-2.9)	-0.01 (-5.0)
GDP FRI	0.39 (13.8)	0.18 (6.6)	0.12 (1.9)	0.02 (0.4)
Oil	0.01 (11.7)	0.00 (1.0)	0.01 (14.8)	0.00 (0.5)
FX	0.01 (1.5)		0.02 (2.8)	
Adj R-sq	0.44	0.46	0.39	0.01
Std err	0.11	0.08	0.10	0.06

Source: J.P. Morgan; Note: Current and lagged values of independent variables are included in the model, table shows cumulative impact with tstat from Wald test of sum of all coefficients significant.

Although as much as one-half of the move up in the global inflation FRI owes to the upward revisions to growth, the signal that this represents a traditional Phillips curve response is undercut by the lack of any changes in our core inflation outlook in DM, where we have raised the growth outlook dramatically (Table 1). In this regard, economist forecast changes seem aligned with the 2012-2019 experience in which our FRI Phillips curve is flat and only the price of oil and currencies have a statistically significant effect on inflation. However, given the strong correlation that has emerged in the past year in the midst of dramatic shifts in growth, it is reasonable to raise the risk that the revisions to boomy DM growth later this year will deliver a material rise in core inflation.

Appendix Table: DataQuery Codes for FRIs

Data available weekly

	CPI	Core CPI	GDP
Global	GL1764625	...	GL1225888
Developed	GL1764345	GL1789282	GL1226008
US	GL1764025	GL1789082	GL1227368
Euro area	GL1764385	GL1789162	GL1227528
Japan	GL1763345	GL1788962	GL1226688
UK	GL1763985	GL1789042	GL1227328
Canada	GL1762905	GL1788922	GL1226248
Australia	GL1762825	...	GL1226168
New Zealand	GL1763545	...	GL1226888
Norway	GL1763505	...	GL1226848
Sweden	GL1763785	...	GL1227128
Emerging	GL1764465	...	GL1225928
Latam	GL1764665	...	GL1226088
Brazil	GL1762865	...	GL1226208
Mexico	GL1763425	...	GL1226768
Argentina	GL1762785	...	GL1226128
Chile	GL1762945	...	GL1226288
Colombia	GL1763025	...	GL1226368
Peru	GL1763585	...	GL1226928
EM Asia	GL1764305	...	GL1225968
China	GL1762985	...	GL1226328
India	GL1763305	...	GL1226648
Taiwan	GL1763945	...	GL1227288
Korea	GL1763385	...	GL1226728
Indonesia	GL1763225	...	GL1226568
Hong Kong	GL1763145	...	GL1226488
Malaysia	GL1763465	...	GL1226808
Philippines	GL1763625	...	GL1226968
Singapore	GL1763825	...	GL1227168
Thailand	GL1763865	...	GL1227208
EMEA EM	GL1764425	...	GL1226048
Czechia	GL1763065	...	GL1226408
Hungary	GL1763185	...	GL1226528
Israel	GL1763265	...	GL1226608
Poland	GL1763665	...	GL1227008
Romania	GL1763705	...	GL1227048
Russia	GL1763745	...	GL1227088
South Africa	GL1764145	...	GL1227488
Turkey	GL1763905	...	GL1227248

Source: J.P. Morgan. Note: To pull from DataQuery, the code is (for global CPI CFR as example): Weekly(DB(ESYS, GL1764625)). Please note the long-form nomenclature for China, Hong Kong, and Taiwan is Mainland China; Hong Kong SAR (China); and Taiwan (China).

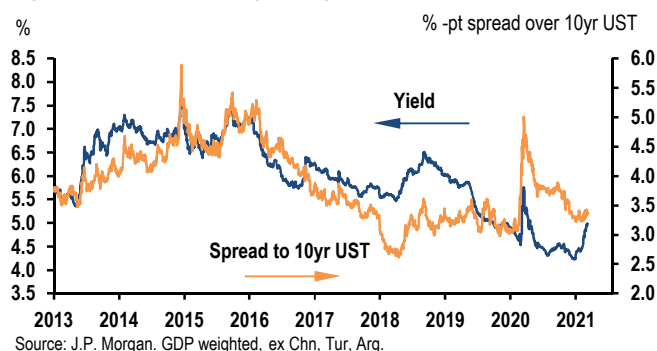
Economic Research Note

EM's transitional monetary framework

- EM yields have risen because of higher USTs; in recent weeks the pressure has been felt on short-term rates...
- ...reflecting ambiguity over policy anchors in the transition to normalization, not heightened EM stress
- In the pandemic, CBs changed their reaction function and added instruments: QE and regulatory forbearance
- They should return to the old framework when recovery is complete, but that's still far away and uncertain
- CBs need to clarify and guide the market on the transitional framework, or endure market pressures
- Such guidance likely will restate reliance on QE and regulatory changes, not just policy rates

The rise in lending rates and the attendant tightening in financial conditions underway, even before EM has seen any positive spillovers from the stronger US fiscal stimulus, have become potential headwinds. This is especially true for EMs with large external financing needs. However, unlike the sell-off early in the pandemic, the recent rise in EM yields largely has been commensurate with the rise in US yields (Figure 1) except for idiosyncratic reasons in some high-yielders, such as Brazil and Turkey (Figure 2).

Figure 1: EM local currency bond yields versus UST

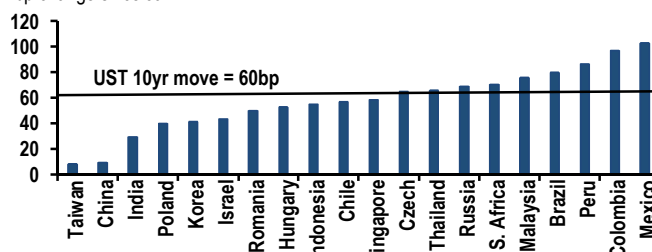


But more disconcertingly, in recent weeks the market has also begun to reprice the front end of the curve in anticipation of policy rate hikes either because of higher inflation or a rise in financial instability or both (Figure 3). We do not think this increase—in some case quite disruptive—reflects heightened domestic stress or deteriorating creditworthiness. Indeed, [EM fundamentals are not vulnerable](#) the same way they were during the 2013 taper tantrum and, with the notable exception of

Brazil, most EMs still have both fiscal and monetary policy space to cushion downside growth risks if needed.

Figure 2: 10yr govt bond yields

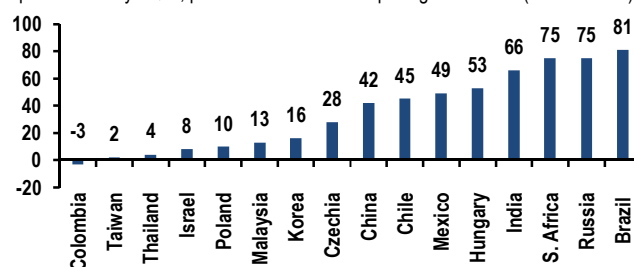
bp change since Jan 27



Source: J.P. Morgan. Please note the long-form nomenclature for China and Taiwan is Mainland China and Taiwan (China).

Figure 3: Market pricing of EM policy rate vs. JPM forecast

bp difference by 4Q21, positive denotes market pricing more hikes (or fewer cuts)



Source: J.P. Morgan. Turkey: 229bp. Data from: March 19, 2021. Please note the long-form nomenclature for China and Taiwan is Mainland China and Taiwan (China).

Monetary policy loses its pandemic anchor

Instead, we believe that, with the recovery underway, market expectations of EM's monetary policy framework are no longer anchored by the framework during the pandemic. So far, EM CBs have sounded incrementally more hawkish. But, with a few exceptions, they have not provided any firm guidance on whether the pandemic playbook—adopted on an exceptional basis because of the crisis—has been abandoned and they have shifted back to the old framework or whether they plan to implement policy in a hybrid framework during the transition to full normalization. Left to its own devices, the market has inferred that with rising commodity prices and higher global growth reducing slack in EM at a faster pace than during the pandemic, inflation will return strongly and force CBs to hike rates earlier and more aggressively than previously thought. In addition, if UST yields keep rising, as is widely believed, EM bond yields will need to at least keep pace, otherwise the narrowing of interest rate differentials will depreciate currencies, which would add to inflationary pressures and, in turn, push CBs to hike policy rates more aggressively.

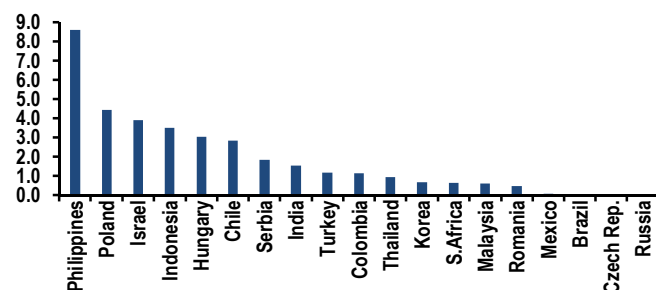
The pandemic monetary framework

The pandemic monetary framework was established through central bank guidance and actions in the first months of the

crisis. It began with CBs first turning to unconventional interest rate policy by cutting policy rates (on growth concerns) even in the face of sharply depreciating FX—something they had not done before. They then turned to unconventional QE, i.e., expanding balance sheets before policy rates hit zero (in some high yielders significantly above the zero limit) to contain bond yields in the face of unprecedented widening of fiscal deficits (Figure 4).

Figure 4: EM central bank purchases of lccy bonds

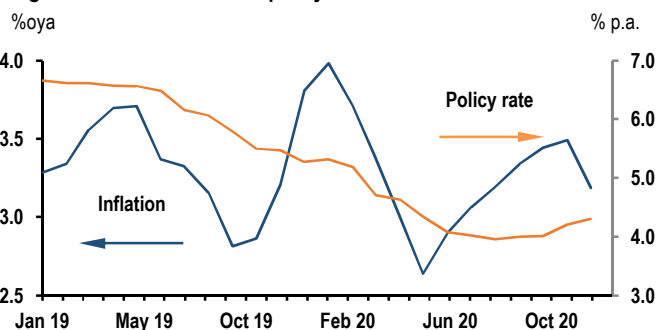
% of GDP, since March 2020



Source: J.P. Morgan.

In the latter part of 2020, when the combination of [pent-up demand](#), the passthrough from FX depreciation, and supply-chain disruptions sparked higher inflation, CBs first resisted rate hikes and then implemented them only marginally (Figure 5). In addition, EM CBs offered [extensive regulatory forbearance](#), which took different forms depending on specific needs but mostly involved debt moratoriums accompanied by the temporary suspension or relaxation of loan classification rules (e.g., the PBOC relaxed NPL recognition criteria and repayments on corporate loans, the RBI allowed [loans to be restructured](#) using relaxed regulatory treatment, while the CBR supported SMEs through [subsidized refinancing](#) rates).

Figure 5: EMX inflation and policy rate



Source: J.P. Morgan

This was a dramatic shift from the discipline of the extant fiscal, monetary, and regulatory framework that had earned EM policy credibility since the 2013 taper tantrum. Initially the market viewed the shift with considerable skepticism. [We had argued](#) at the start of the pandemic that such a shift was not only coming but was necessary given the likely depth of

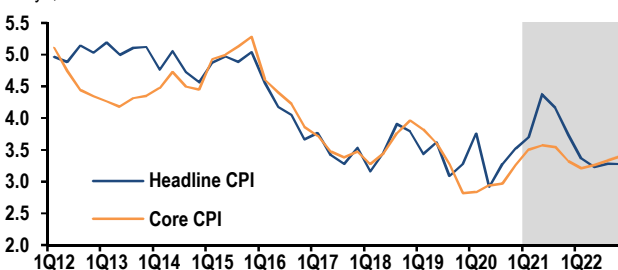
the crisis. There were substantial market risks associated with it. But we argued that as long as authorities credibly established that the shift was temporary because of the exceptional circumstances and that policies would be returned to their pre-pandemic discipline, such risks could be contained.

How long is temporary?

Along with DM, the EM growth outlook has also begun to recover. Recent data suggest that the second wave of the pandemic has had markedly less impact on activity than feared. In addition, the unprecedented US fiscal stimulus will have positive spillovers on EM growth, which along with the reflation in commodity prices will raise inflation. Our forecasts see EM ex. China (EMX) GDP growth picking up to a strong above-trend 5%-5.5% ar over the middle quarters of the year coinciding with a roughly 1%-pt pickup in headline inflation and a more modest rise in core inflation (Figure 6). But this would still leave EMX well below a full recovery even by 2022 (Figure 7). The transition from the pandemic to a full recovery is both uncertain and likely to be long.

Figure 6: EM ex. China headline vs core CPI

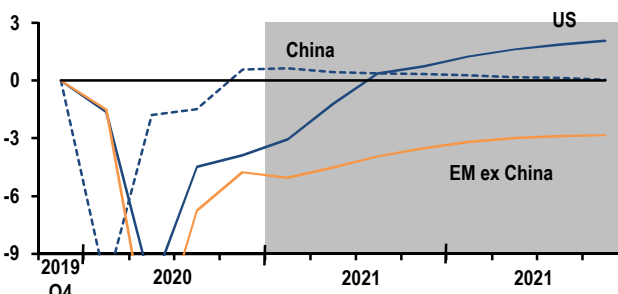
% oya, shaded denotes forecast



Source: J.P. Morgan

Figure 7: Real GDP

% deviation from potential path



Source: J.P. Morgan

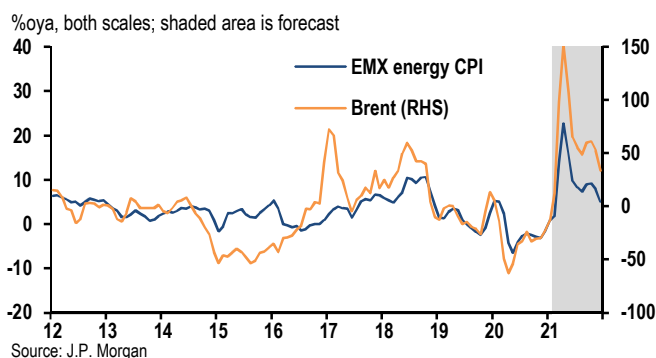
Can runaway inflation derail the recovery?

A particular fear is that global slack is not just tightening but is tightening fast. This, along with the rise in commodity prices and FX depreciation because of the strengthening of the USD index will push up inflation faster and further above the inflation targets of EM CBs, forcing them to tighten policy

more than anticipated. However, such a scenario is not without uncertainties. As noted earlier, the slack in EM is substantial and despite the spillover from stronger US growth, output gaps are unlikely to close soon. A slow rollout of vaccination could slow the recovery further, while the scarring of labor markets and impairment to balance sheets could reduce potential growth and [narrow slack more quickly](#).

As in the past, governments could restrict the passthrough from higher crude prices to pump prices, thereby muting the impact on inflation. In 2014-19 only 30% of crude price changes were passed on to domestic energy prices, limited by administrative controls and tax changes (Figure 8). This will worsen fiscal balances but keep inflation and inflationary expectations from flaring up. As mobility increases and the services sector recovers, the correction of the earlier rise in goods (food and non-food goods such as vehicles) inflation because of supply-chain bottlenecks can dampen price increases as it is already doing in several economies.

Figure 8: EMX energy CPI inflation vs. Brent oil price



QE will remain central in the transition

In light of these uncertainties, what is urgently needed is guidance and actions from EM central banks on the monetary policy framework in the transition to a full recovery. We suspect that such a transitional framework will continue to rely on QE and regulatory changes and not just interest rate changes and FX intervention as the market currently is inferring.

So far, most EM central banks have allowed bond yields to rise unimpeded as it is a natural response to the increase in US Treasury yields and because some increase in real yields is likely given the recovery in domestic growth. And although the premium over UST has not widened on average, it remains higher than the pre-pandemic average over 2018-19. However, if yields continue rising, especially in a disruptive manner, EM central banks are likely to reopen the pandemic playbook by intervening in bond and, where needed FX, markets and use regulatory changes to dampen the rise.

The largest QE uptake is likely to continue to be among low-yielding EM with a view to anchoring yields and supporting growth. In recent weeks central banks in CEE have announced various tweaks to their government bond purchase programs to dampen the effects of market-led tightening in financial conditions (e.g., the NBH scrapped its 50% ownership limit on government bonds). In the high-yielders, QE will again be used opportunistically to tame volatility, though some countries (e.g.: India, Indonesia) may become more reliant on QE as external financing costs rise and investor confidence wanes. Some (Hungary, India) are also undertaking operation “twist” in a bid to normalize monetary conditions while ensuring the government borrowing programs go through without disruption.

Private savings still plentiful

Last year, the overall volume of QE purchases, especially in the high-yielders, turned out to be smaller than initially thought due in part to the unexpectedly large increases in EM excess private sector savings. Private savings are set to retreat relative to investment needs this year, but will likely remain well above their end-2019 levels (on average by 3%-pts of GDP; Table 1). This suggests that most EMs, including many of the high-yielders, [still have space to fund higher deficits](#) and support growth without straining financial stability.

Table 1: EM private sector S-I balances
 % of GDP

	2019	2020	2021	Change in		Change
				2020	2021	2019-21
Brazil	3.1	12.8	6.6	9.7	-6.2	3.5
Chile	-0.8	8.1	2.2	8.9	-5.9	3.0
China	3.8	5.7	4.7	1.9	-1.0	0.9
Colombia	-1.8	5.2	3.5	7.0	-1.7	5.3
Czech Republic	-0.6	9.7	7.8	10.3	-1.9	8.4
Hungary	1.1	8.6	5.7	7.4	-2.9	4.6
India	8.7	16.2	10.9	7.4	-5.3	2.1
Indonesia	-0.6	5.5	4.5	6.1	-1.0	5.2
Israel	7.3	16.2	9.0	8.8	-7.2	1.7
Korea	4.2	9.3	8.2	5.1	-1.1	4.0
Malaysia	6.8	10.9	8.0	4.1	-2.9	1.2
Mexico	1.5	4.4	3.5	3.0	-0.9	2.0
Peru	0.2	9.4	6.8	9.2	-2.6	6.6
Philippines	2.9	8.9	6.3	5.9	-2.6	3.4
Poland	1.1	13.7	6.9	12.6	-6.7	5.8
Romania	-0.3	3.9	2.0	4.3	-2.0	2.3
Russia	2.0	6.0	4.1	4.0	-1.9	2.1
South Africa	3.5	13.6	10.5	10.1	-3.1	7.0
Thailand	8.3	10.2	4.3	1.8	-5.8	-4.0
Turkey	3.8	-1.6	0.6	-5.4	2.2	-3.2

Source: J.P. Morgan. Augmented fiscal balance for China.

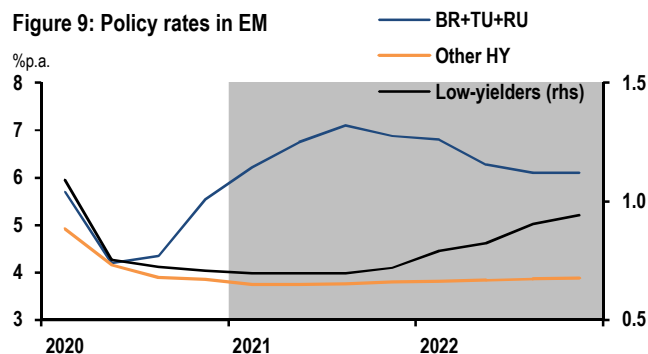
Increased space for FX intervention

EMs did not intervene heavily in FX last year in part because central banks' tolerance for currency depreciation as a shock absorber was relatively high amid low inflation and improving current account balances. But with demand now strengthening, inflation picking up, and CABs worsening, policymakers likely will be less inclined toward another round of large-scale FX depreciation. Encouragingly, outside of Turkey, most EMs have ample FX reserves relative to short-term external financing needs. In addition, if the [proposed SDR expansion](#) goes through some of the larger EM economies that face external funding pressures like Argentina and Turkey will see sizable increases in FX reserves that could provide much-needed breathing space and time to adjust policies.

Some hikes now but rate normalization awaits fuller recovery and the Fed

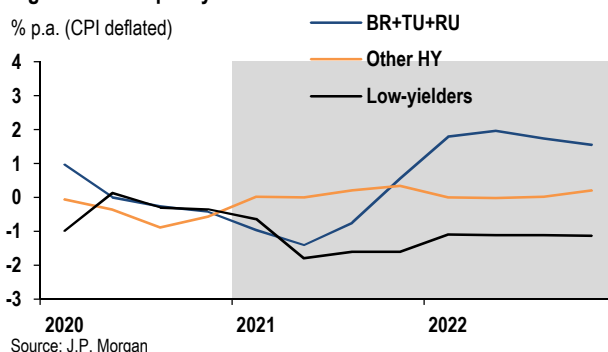
Some rate normalization will happen this year but is likely to start in earnest only in 2022 and will depend crucially on how the economic recovery proceeds in the interim. Apart from a small group of EM high-yielders (i.e.: Brazil, Turkey and Russia), the rise in inflation is unlikely to be rapid enough to push inflation above central-bank targets and we continue to forecast only modest tightening in 2H21 and full-blown policy normalization only in 2022 (Figure 9).

Figure 9: Policy rates in EM



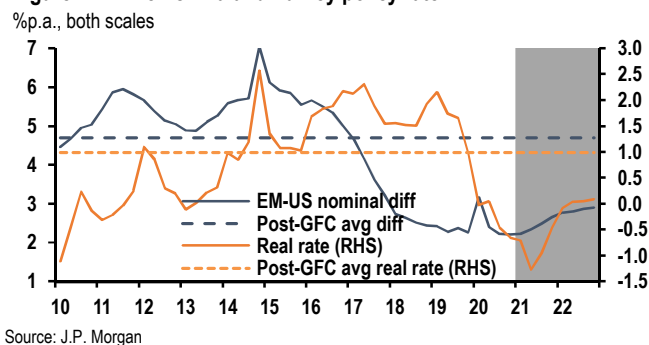
Russia's demand recovery is running ahead of expectations and prospects for a stronger fiscal impulse in DM implies positive spillovers to growth, including via commodities, and a more inflationary environment in general. In Brazil and Turkey, inflation fears are compounded by other risks (financial stability in Brazil, past over-extension of credit in Turkey) that are undermining central banks' credibility. In these countries, rising inflation and inflation expectations also had eroded real interest rate buffers required to prop up credibility, and rate hikes will be needed to restore that buffer (Figure 10). In the low-yielders, increased optimism on growth and inflation are prompting us to pull forward rate normalization, though for the most part we do not foresee hikes before 2022.

Figure 10: Real policy rates



While EMX real rates are set to rebound from their lows around mid-2021, our forecasts through end-2022 nonetheless leave them significantly below their post-GFC average. Similarly the nominal rate differential versus the US—the yield buffer to compensate investors for the country risk premium and hence a key marker of financial stability—is set to stabilize but will remain near 10-year lows (Figure 11). These relatively easy policy stances appear broadly appropriate considering our forecasts for only partial recoveries through 2022. However, in the EM low-yielders, where we expect output gaps to close more rapidly, greater rate normalization might be needed in 2022.

Figure 11: EM ex China and Turkey policy rate



Conclusion

The market is pricing a recovery that is both uncertain and still far away. If EM CBs do not guide it, then the market will move ahead with this idea based on inflation expectations that are extrapolated from commodity prices, DM policies, and growth projections until it is disappointed. This will create unnecessary volatility that CBs can prevent. Most EM central banks are struggling with multiple objectives of keeping growth high, inflation low, exchange rates stable, and bond yields contained in the face of a fully or partially open capital account (e.g., India and Indonesia). While it is true that central banks have too few instruments to address each objective adequately, they have used more tools than just interest rate changes and FX interventions during the pandemic.

Economic Research Note

Diversifying Japan's supply chain for resilience

- **The pandemic revealed the fragility of the cost-effective supply-chain system...**
- **...as a heavily concentrated supplier base caused serious supply chain disruptions**
- **Some firms are diversifying their overseas operations, supported by government subsidies...**
- **...and increasingly value resiliency in their supply chain management**

The pandemic has revealed the fragility of the existing supply-chain system. Japan's supply chains have evolved in recent decades with the aim of maximizing efficiency. With the global trade integration of the last several decades, Japan's manufacturing sector has increased its reliance on overseas suppliers, with a higher concentration of supplier bases, particularly in China. This concentration has accelerated during the US-China trade frictions, as rising trade risks divided the supply chain network into regional blocs. Such a supply chain network has helped firms to manage inventories efficiently, while enjoying lower labor costs and avoiding higher tariffs. However, after the start of the pandemic firms faced severe shortages of intermediate goods caused by both factory shut-downs among their concentrated suppliers and disruptions of international logistics.

As a result, firms are now taking steps to restructure supply chains to improve resiliency. Some firms are diversifying their production bases, shifting away from China to other countries in the region and back to Japan. The government also has supported firms with a subsidy program for supply chain diversification, mainly for those who plan to expand domestic production. The program attracted an overwhelming number of applications, and the government has called for a second round. Such moves could dial back global trade integration, incentivizing firms to focus on domestic production. At the same time, improving resiliency without reducing efficiency remains challenging. Facing this challenge, firms are increasingly focused on balancing cost efficiency and resiliency in their supply-chain management, potentially leading to a multi-decade restructuring of supply chains.

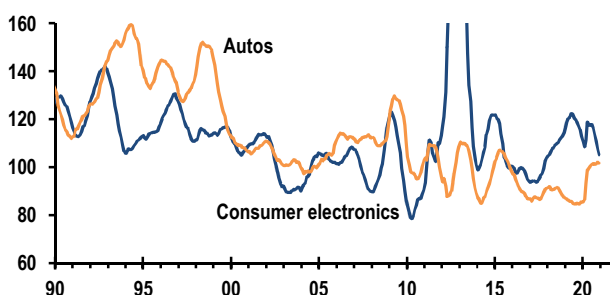
The flipside of efficient supply chains

The pandemic highlighted the fragility Japan's cost-effective supply chain network. Over the past decades, Japan's manufacturing sector had established cost-effective supply chains by systematically reducing inventories. For example, firms in

the auto and consumer electronics industries made multi-decade efforts to reduce their inventory-to-shipment ratio, by introducing efficient inventory management systems (Figure 1). Such supply-chain management improved firms' profitability by generally reducing inventories and lowering inventory costs, but limited the number of suppliers of intermediate goods. Then, during the pandemic, many companies faced a severe shortage of intermediate goods, and were forced to temporarily stop production—highlighting the risks of the cost-effective supply chain system.

Figure 1: Inventory-to-shipment ratio

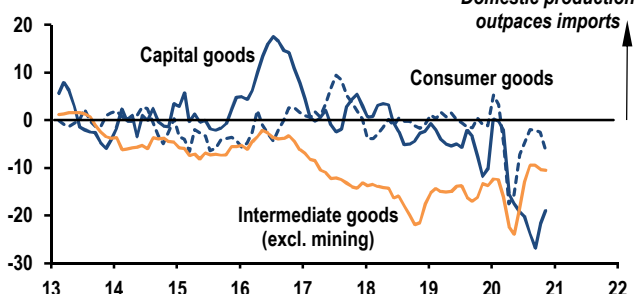
2015=100, sa, 12mma



Source: METI, J.P. Morgan

Figure 2: Gaps between domestic production and imports

2013=100, 6mma



Source: METI, J.P. Morgan

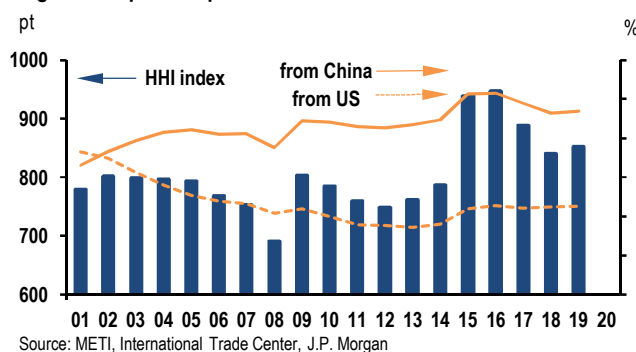
Shutdowns of suppliers' factories was not the only source of supply chain disruptions during the pandemic. Interruptions of global logistics also damaged international suppliers' delivery systems, disrupting domestic production. This was particularly damaging to Japanese firms, as their links with overseas suppliers have strengthened over the past decade, increasing their dependence on imports in their procurement of intermediate goods for use in domestic production. Indeed, imports have outpaced domestic production of intermediate goods since 2014, while growth in imports and domestic production had been broadly aligned for capital goods and consumer goods until the pandemic began (Figure 2). This has raised the import share of intermediate goods, along with a trend rise in Japanese firms' overseas operations, with an increasing number of firms having set up overseas production bases to save labor costs. However, once the pandemic disrupted logistics and personnel mobility, the fragility of the cross-country sup-

ply chain system became apparent, with delays in deliveries of intermediate goods.

Supplier concentration

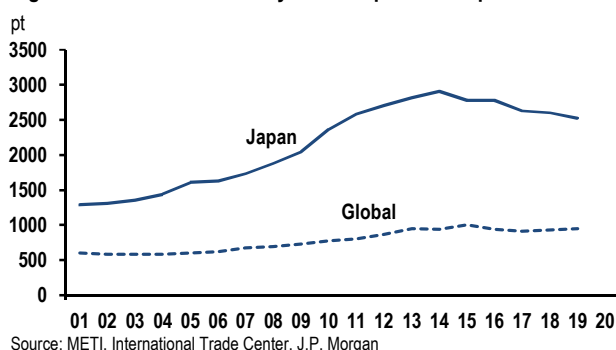
A lack of geographical diversity of suppliers exacerbated the supply chain disruptions during the pandemic. Japan's import sources have become less diversified over the past decade, reflecting the specialization trend in the global supply chain system. According to a report from the Ministry of Economy and Trade Industry (METI), Japan's import HHI (Herfindahl-Hirschman Index measuring concentration of trading partners) has risen since the Global Financial Crisis (GFC), indicating that Japan's import sources became less-diversified compared to the pre-GFC period. This contrasts with trend diversification of import sources during the years before the GFC, with the HHI index falling from 2002 to 2008 (Figure 3). This trend reversal from diversification to concentration of import sources was largely attributable to a persistent rise of China's share in Japan's import sources; while a rapid initial increase in imports from China from a low level had lowered Japan's HHI, the index started to rise with further growth in imports from China after the GFC. As a result, Japan became heavily dependent on imports from China, with firms relying on components manufactured there. This likely benefited Japanese manufacturers, reducing costs and easing inventory management. However, once the pandemic began in early 2020, Japanese firms faced a severe shortage of components due to supply chain obstructions in China.

Figure 3: Japan's imports share and HHI index



Supply-chain concentration is particularly evident in some industries. For electronic machinery and components, Japan's HHI index had risen since 2001, with China's share more than doubling from 20.9% in 2001 to 51.1% in 2014 (Figure 4). The index has declined since 2014, as imports from other Asian countries have increased, but the HHI index for electronic machinery and components remains well above the global average, highlighting Japan's high dependence on suppliers in China.

Figure 4: Electrical machinery and components imports HHI index



Supplier concentration is also evident for key manufacturing components. Along with the growth in the number of overseas subsidiaries of Japanese firms, automakers have increasingly relied on imports in their parts procurement, especially from China. Indeed, Japan imported 49.4% of auto parts from China in 2020, a 4%-pt rise from 2016 (Figure 5). There is a similar high dependence on semiconductors from a single source. Taiwan has played a dominant role in Japan's semiconductor imports, and its share has risen further since 2019, reaching over 50% in 2020 (Figure 6). Indeed, this concentration caused automakers' recent semiconductor shortage. With the surge in global demand for semiconductors as production normalized after the pandemic, suppliers in Taiwan faced difficulties in swiftly meeting the demand, resulting in some Japanese automakers' suspending production.

Figure 5: Japan's auto parts imports share by source

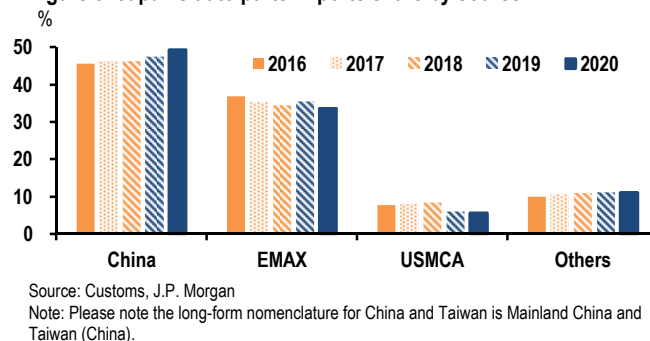
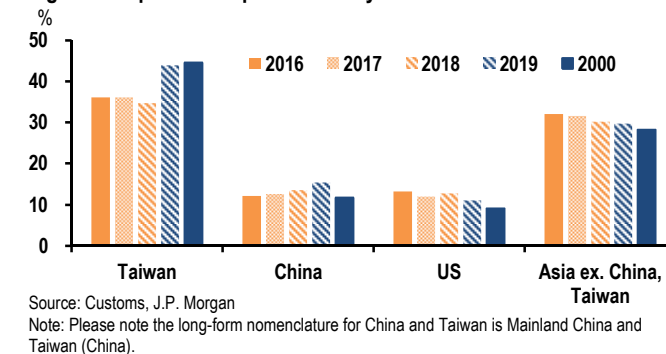


Figure 6: Japan's IC imports share by source



The concentration in intermediate goods suppliers accelerated over the last couple of years, after US-China trade friction intensified. As trade risks have risen since early 2018, many manufacturers appear to have restructured supply chains to adapt to the new environment, bringing supplier bases back close to the major consumer markets. With this move, Japanese firms' supply chain network has gradually divided into regional blocs, realigning the globalized supply chain network. Indeed, the USMCA's share in Japan's auto parts imports declined from 8.4% in 2018 to 5.7% in 2020, while China's share jumped from 46.3% to 49.4% over the same period. To avoid higher tariffs, Japanese automakers have set up a supply chain network to produce autos for US consumers in North America, while factories in Asia focus on regional demand. This move appears to have regionalized the supply chain networks, with geographically less diversified suppliers.

Focus shifting to resilience

With the highly-concentrated regional supply chain network, manufacturers have successfully maintained a cost-effective intermediate goods procurement system, while avoiding higher tariffs. Indeed, an effectively concentrated supply chain system generally helps firms to generate higher profits, allowing them focus on their fields of expertise, while reducing input costs. However, the pandemic exposed the fragility of this system. Factory shutdowns and logistics disruptions caused severe shortage of intermediate goods for Japanese manufacturers, particularly for those with concentrated supplier bases. As a result, rather than just maximizing efficiency, manufacturers now see rebuilding a resilient supply chain system as indispensable to their business agenda.

The government also moved forward with supports for supply chain diversification. The supplementary budgets announced after the pandemic included provisions for programs to encourage firms to diversify supply chains to reduce risks of disruptions, mainly through redirecting manufacturing operations back to Japan. With this program, the government subsidizes half of investment costs for large companies and one-third for SMEs up to JPY15 billion. In the first program starting November 2020, the government approved 146 projects out of 1,670 applications, with a JPY248 billion budget (Table 1). As demand for the subsidy program remained high, the government has called for applications to a second round of the program, with a JPY211 billion budget. Although the budget is smaller than for domestic investment, the government has also subsidized investment projects to diversify overseas production bases away from China toward ASEAN and other countries in the region. While Japanese firms' actual transfers of production bases have been limited thus far, compared to the total scale of Japanese firms' production operations in China, this could lead manufacturers to dial back

on global integration and focus on domestic locations as well as in some other neighbors.

Table 1: Government subsidy program for supply chain diversification

Target	Status	Approved		Subsidy ceiling
		Total amount	Cases	
Domestic	Closed in Nov 2020	JPY248 bn	146	JPY15 bn
Domestic	By May 2021	JPY211 bn	n.a.	JPY10 bn
Overseas	Closed Jul 2020	JPY24 bn	30	JPY5 bn
Overseas	Closed in Dec 2020	—	30	JPY1.5 bn
Overseas	Upcoming	n.a.	n.a.	JPY1.5 bn

Source: METI, J.P. Morgan

With the pandemic exposing the fragility of the cost-effective supply chain system, firms increasingly are valuing resiliency in their supply chain management. With government support, an increasing number of firms are moving production back to Japan or to ASEAN countries, reducing their reliance on China. This could lead to a multi-decade restructuring of supply chains. That said, for most firms, supply chain management does not have to be an all-or-nothing effort, and maintaining a balance between cost-efficiency and resiliency appears to remain critical. In this regard, some firms could focus on improving inventory management using new digital technology, while keeping the existing supply chain network. While the overall direction of this post-pandemic supply chain restructuring is not yet known, firms are certainly paying more attention to the resiliency of the system.

Economic Research Note

Euro area: Vaccine supply unlikely to be a constraint

- **Precautionary suspension of AstraZeneca vaccine raises uncertainty about plans in the Euro area**
- **This uncertainty builds on an ongoing issue with AZ supply shortfalls**
- **Our analysis of the recently-updated Italian vaccination plan suggests AstraZeneca's supply is not decisive**
- **70% of population immunization target manageable without use of AZ and even assuming other big delays**
- **Conclusion seems to have broad validity as Italy's supplies are based on quota allocation of EU purchases**

This week, many EU countries suspended the use of the AstraZeneca (AZ) vaccine after reports of potential new side-effects raised the alert of national authorities. Eventually, the EMA confirmed its assessment that the AZ vaccine is safe and effective, and vaccinations promptly restarted in Euro area countries. Even though this uncertainty was resolved quickly, this turn of events revived concerns about vaccination plans in the Euro area, building on the uncertainty linked to large-scale supply shortfalls from the same manufacturer.

Hence, there is a legitimate concern about whether the Euro area countries' target of vaccinating 70%-80% of the population by the end of the summer is feasible, even without further recourse to AZ. Our analysis, based on Italian data from the Draghi administration's recently revamped vaccination plan, suggests that neither supply nor distribution constraints should materially undermine the 80% target. More importantly, our analysis suggests that a 70% target is comfortably within, even under very adverse scenarios that involve no further use of the AZ vaccine and large-scale shortfalls in the supplies of the other three approved vaccines: Pfizer/BioNtech (P/B), Johnson & Johnson (J&J), and Moderna (M). As the supply of vaccines to Italy is based on a quota allocation from the EU's collective purchases, we believe this reassuring message has broader regional validity. In turn, it aligns well with our baseline view of a monotonic exit from restrictions, up to some possible delays in the near term.

Macro forecast of unfettered reopening rests on steady vaccination

In recent weeks, first delivery delays at AZ, and more recently potential safety alerts, have raised concerns that the disruption and a possible permanent shortfall in AZ supplies would risk the Euro area countries' target of vaccinating 70%-80% of

population by the end of the summer. However, even if the recent interruption to the AZ vaccinations due to potential side effects has resolved within a matter of days, it is quite possible that the general population will remain skeptical of AZ and will prefer other products, at least in the near term. More fundamentally, AZ has announced further delivery shortfalls for 2Q21, on the order of 60%, compounding a nearly 66% shortfall during 1Q21. These incremental supply shortfalls by AZ have opened a conflict between the EU institutions and national governments and the manufacturer, which at this stage entails a threat to ban exports of AZ vaccines produced in the EU.

These issues have important macroeconomic consequences, given that our Euro area forecasts hinge on a steady but not overly ambitious deployment of vaccines. Third-wave effects with associated longer-lasting restrictions may restrain activity in the near term and reshuffle growth from 2Q21 to 3Q21, but [our forecast](#) still envisages a rapid normalization, after vaccinations reach a steady state. The steady-state pace implicit in our forecast—which involves a near-tripling of the current pace in the largest Euro area economies—would allow full vaccination (considering that all vaccines except J&J require two doses for each person) of 70%-80% of the population by end-September.

Most Euro area countries have met constraints in the first stages of vaccination. Some issues are common (supply), others are idiosyncratic (local rules, differences across regions, logistics, population hostility, etc.), but all the largest EU economies rank pretty closely in terms of vaccination results so far, with the number of inoculations measuring up to 12% of the population. We believe that all are ramping up the logistical effort, with a quite uniform steady-state daily vaccination target of 0.8% of the population.

The message from Italian data: Supply not a constraint even under worst-case scenarios

The newly-instated Draghi administration recently revamped Italy's vaccination plan, providing a good opportunity to verify and stress-test these assumptions. This new plan was published last week, with the most updated supply table to the best of our knowledge, and measurable assumptions on steady-state vaccinations and targets. Much of the plan deals with solving logistical issues, by massively increasing the number of personnel involved in vaccinations (using the network of GPs, dentists, company doctors, and possibly pharmacies), taking closer centralized control of supplies, adding vaccination locations (including factories, other working sites, gyms, etc.), and streamlining the priority order on the basis of age. According to the government, the steady-state level of 500k daily vaccinations (0.83% of the population) should be reached already mid-April. As discussed, at this pace, the

government expects to vaccinate more than 80% of the population before the end of September.

Table 1: Italy vaccine deliveries

000's doses and % of population

	1Q21	2Q21	3Q21	4Q21	Total
AstraZeneca	5352	10042	24771	0	40165
Pfizer/Biontech	9469	23162	23534	9601	65766
J&J*	0	7307	15943	3321.5	26571.5
Moderna	1330	4650	13969	19809	39758
Total people tvb in full	8076	26234	47080	18027	99416
% single shot (JJ)	0.0	27.9	33.9	18.4	26.7
% Total pop tvb in full	13.4	43.5	78.1	29.9	165.0

Source: Italian government, J.P. Morgan estimates. * means single dose

Turning to the most pressing issue of supply, Table 1 shows that the supply of vaccines as currently scheduled, from all four main providers including AZ, greatly exceeds the size of the population (after adjusting for the double dose required by all vaccines except J&J). In fact, the expected supply would be enough to fully vaccinate 78.1% of the population in 3Q21 alone. To remain on the conservative side, we chose not to show the supply of Curevac, which is supposed to be delivered from 2Q21 but has not yet been submitted to EMA for approval. As shown in Table 2, AZ comprises an important but not decisive share of the total supply (on a full immunization basis), which itself greatly exceeds the total population.

Table 2: Italy vaccine supply by producer

% of total (based on full immunization)

	1Q21	2Q21	3Q21	4Q21
AstraZeneca	33.1	19.1	26.3	0.0
Pfizer/Biontech	58.6	44.1	25.0	26.6
J&J*	0.0	27.9	33.9	18.4
Moderna	8.2	8.9	14.8	54.9

Source: Italian government, J.P. Morgan estimates. * means single dose

Table 3 stress-tests this baseline, by assuming a very remote worst-case scenario where—because of regulatory or behavioral or supply issues—AZ is not used beyond what has already been administered in 1Q21 so far (i.e., 1,151k doses). The table shows that even with no further use of AZ, the scheduled supply from the other three manufacturers would suffice to vaccinate more than 100% of the population by the end of 3Q21.

A more adverse scenario where not only AZ no longer is in use, but also the other three manufacturers experience 25% delivery shortfalls, is also sufficient to reach the 80% target. And, the 70% target is still feasible even with a 35% shortfall in supplies.

The last scenario in Table 3 allows for more variability, taking into account the fact that (i) P/B and M have so far proved

fairly reliable, able to quickly recoup early delays in the current quarter, and (ii) that J&J may struggle to meet its targets by a significant amount in the first few months of production. The conclusion remains encouraging even in this admittedly extreme scenario, as the 70% immunization target is still reachable in the face of a 50% shortfall in J&J and a 25% shortfall in P/B and M.

Table 3: Italy estimates under stress scenarios

% of population

	1Q21	2Q21	3Q21	Total
(1) Without AZ	9.9	35.2	57.6	102.7
(1) + 25% shortfall in others	9.9	26.4	43.2	79.5
(1) + 35% shortfall in others	9.9	22.9	37.4	70.2
(1) + 25% shortfall in P/B and M and 50% in J&J	9.9	23.4	36.6	69.9

Source: Italian government, J.P. Morgan estimates.

As mentioned, the pro-rata country allocation of EU-wide purchases allows us to extrapolate these results broadly to the whole of the Euro area (except some countries that may have opted out of certain vaccines).

Other factors convey sense of significant safety margin

Looking at the demographic distribution, vaccinating 70% of the Italian population by the end of September, prioritizing the elderly and more vulnerable groups, leaves out only the population under 30 years old. In Italy, this age bracket accounts for 31.7% of the population and 25% of total reported COVID-19 cases, but only 0.04% of recorded COVID-19 casualties. Hence, even a reduced 70% target by end-September would only (and temporarily) leave out the age groups that are disproportionately less impacted by the disease.

Without granular information on supply within the quarter (and on contractual clauses), it is possible that even if the manufacturers were to comply with the quarterly aggregate targets, delivery could take place in waves close to the end of the quarter, leading to distribution bottlenecks. However, the Italian government's vaccination plan anticipates a relatively even split of deliveries during each quarter, given that it clearly states that supply is not set to be a constraint toward achieving 80% immunity by mid-September. Finally, we note that even in our worst-case scenario (no AZ and big shortfalls for other manufacturers), the daily vaccination pace required to exhaust supply by end-September would be less than 400k per day. This seems to create a further buffer to accommodate unforeseen inefficiencies, such as reduced distribution during weekends or during August (traditionally a holiday month).

Economic Research Note

Should EM CBs move the policy rate in smaller steps?

- The pandemic has increased uncertainty over output gaps and inflation, which are key to monetary choices
- This is likely to turn central bankers cautious, but not reacting adequately risks unhinging inflation expectations and eroding credibility
- One way to balance these concerns is to move the policy rate in smaller steps than the traditional 25bp moves

Higher commodity prices are already exerting upward pressure on prices, which, along with the stronger demand recovery has prompted us to revise up 2021 inflation in EM. But at the same time, food inflation is slowing and core prices remain low, benefiting from improved logistics as mobility in the economy increases. Thus, while it is relatively clear that inflation is on the rise, the extent and speed of the move up remains uncertain. At the same time, despite the stronger growth outlook, the economic recovery is likely to remain incomplete as late as 2022 in several EM economies. And there is little clarity on how the scarring of labor markets and the impairment to household and SME balance sheets could affect potential growth, thereby clouding measures of economic slack in the economy, for example the output gap.

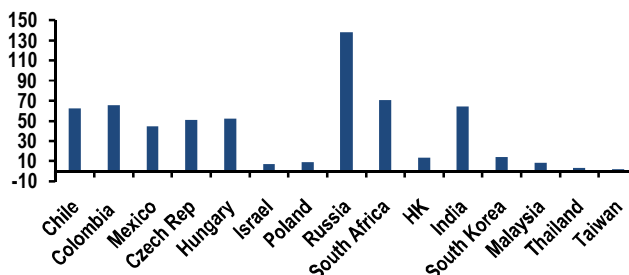
In [a previous note](#) we argued that increased uncertainty over the output gap is likely to push central banks (CBs) to lower its weight in the monetary policy reaction function and the weight of inflation (i.e., react less to changes in growth and more shifts in inflation). In this note we discuss that the atypical nature of the COVID-19 shock also increases uncertainty on the main structural parameters of the economy, which also could prompt monetary authorities to react less aggressively to inflation shocks.

In all, CBs should prove more cautious in reacting to changes to both growth and inflation. And herein lies the dilemma. Hiking the policy rate too slowly could unhinge inflation expectations and erode hard-earned policy credibility. But, moving too quickly, as seems priced in some cases, (Figure 1) could unravel the nascent recovery.

There is, however, a compromise that we discuss in the note: Namely, shift the policy rate in small steps. CBs have traditionally moved in discrete steps of multiples of 25bp. Perhaps, it may be best, under heightened uncertainty, to move in small steps of say 10 or 15bp. Of note, this does not apply to countries where monetary policy is driven by financial stability and overheating pressures. These countries will continue to

move in large steps to establish credibility, as Brazil and Turkey did this week.

Figure 1: Cumulative market pricing of EM MPR changes
 bp, next 9 months, as of March 19



Source: J.P. Morgan. Please note the long-form nomenclature for Hong Kong and Taiwan is Hong Kong SAR (China) and Taiwan (China).

Revisiting the basic monetary policy model: Optimal policy rule under certainty

The workhorse monetary policy model is based on two basic equations relating inflation and growth: the Phillips curve and the Investment-Savings (or IS) curve (see [Clarida, Gali & Gertler, 1999](#)). The Phillips curve links inflation to the output gap (g), measured as the difference between the actual and potential output levels. The IS equation describes the behavior of aggregate demand in the economy, where the slack in the economy or output gap is assumed to be a function of the gap between the real interest rate chosen by the policymaker (deflating by inflation expectations) and the neutral real rate (r^*).

The CB looks for the policy rate, inflation, and output gap combination that minimizes a loss function; that is, the interest rate that minimizes a function of the output gap and inflation deviations from the target. The optimal policy reaction function then links the policy rate to the output gap, inflation gap, and inflation expectations (a forward-looking variable). Finally, the weights the policymaker attaches to realized inflation and the output gap in the reaction function depend on the parameters (slope) of the IS and PC (defined as set X). Thus, the policy rate deviation from its neutral level follows the reduced expression below:

$$i - i^* = f(g, \pi - \pi^e, X) \quad (1)$$

The uncertain policymaker

In real policymaking there are, however, significant and changing uncertainties (see [Bernanke, 2007](#)) over not just the parameters of the framework but also the shocks to demand and supply. In EM the uncertainty associated with the unobserved parameters r^* and g^* is large in comparison to that in DM because of more frequent structural changes to the economy. For example, it is unclear how the pandemic has affected potential growth and, thus, the size of the output gap. This

increased uncertainty prompts the policymaker to put more weight on inflation—as an indicator both of price pressures and of the extent of slack in the economy—as discussed in [Szentivanyi and Aziz, 2020](#).

Another source of uncertainty stem from regime change in the parameters that rule the economy, represented by the IS and PC curves, particularly on the manner the output gap (or unemployment) reacts to movements in the interest rate.

These two sources of uncertainty enter the policy reaction function, so the policy rate will now depend on the parameters in Eq 1 plus two additional components: σ_g and σ_X , representing the variance of the output gap signal, and the structural parameters, respectively:

$$i - i^* = f(g, \pi - \pi^e, X, \sigma_g, \sigma_X) \quad (2)$$

The literature shows parameter uncertainty (σ_X) provides a clear incentive for the policymaker to be more cautious when choosing the policy rate deviation from its neutral level. Intuitively, if there is uncertainty about the slope coefficient in the IS curve, policymakers can mitigate it by keeping the magnitude of the interest rate gap close to zero. That implies a policymaker tolerating higher inflation than in the parameter-certainty case.

Similarly, if the policymaker is uncertain about how much of an effect unemployment has on inflation (PC slope), the policymaker can mitigate that risk by keeping the output gap closer to zero than in the certainty case. That implies responding less aggressively to inflation shocks.

This incentive, called the attenuation principle, was originally discussed by [Brainard, 1967](#). In sum, the policymaker should respond less aggressively to inflation shocks than in the case of certainty. Note this could be interpreted as a more dovish stance of the central bank (i.e., an asymmetric loss function), while it simply stems from recognizing persistent uncertainty on the key structural parameters (see [Clouse, 2018](#) for a detailed discussion).

Inflation expectations matter

So far we have treated inflation expectations as being determined outside the model. But we have seen repeatedly in the past that changes in the policy stance can alter inflation expectations. In such cases, the policymaker would have to weigh the benefits in terms of adjusting inflation and the output gap today versus the potential costs of observing a persistent change in inflation expectations in the near future. For example, if the policymaker believes the probability of a future jump in inflation expectations depends on the current

realized inflation, the central bank should react more aggressively in keeping inflation close to target.

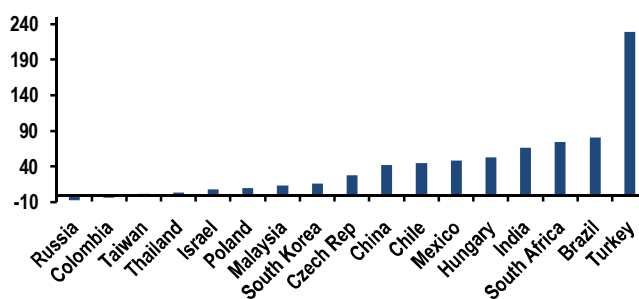
Therefore, even when facing substantial uncertainty, central banks with less credibility (i.e., facing positive correlation between realized and expected inflation) should react more aggressively than those with credibility, accepting higher output costs (higher unemployment). But higher real output costs could trigger risk of regime discontinuity, exacerbating de-anchoring inflation expectations (an example could be monetary policy under fiscal dominance).

A compromise: Move the policy rate in smaller steps

We laid down the case for central banks to be very cautious when assessing the merits of raising the policy rate amid unusually high uncertainty associated not only with the output gap, but also with key economic parameters given the unusual characteristics of the COVID-19 shock. This “reinforced” attenuation principle should drive policymakers to react much less aggressively not only to shocks to the output gap or unemployment, but also to inflation shocks. But, at the same time, policymakers cannot risk future jumps in inflation expectations.

One possible course of action for central banks to weigh its merit is to reduce the magnitude of discrete policy rate changes. Monetary policy implementation in a number of markets entails a 25bp minimum discrete change for the policy rate. But even such a move could prove ‘too risky’ to implement in the post-COVID years. Facing such a dilemma, one partial solution is reducing the discrete policy rate changes to 10 or 15bp. That would help address both the prevailing and persistent uncertainty spell, while minimizing the risk of de-anchoring inflation expectations. This would prove more relevant for central banks that have been able to set the policy rate at their ZLB and/or with unconventional policies at play (see [Bernanke, 2017](#)).

Figure 2: Market pricing of EM MPR changes vs JPM 4Q21 forecasts
bp, as of March 19



Source: J.P. Morgan. Please note the long-form nomenclature for China and Taiwan is Mainland China and Taiwan (China).

Economic Research Note

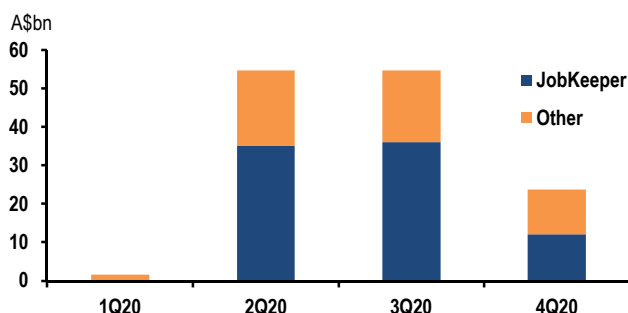
Australian labor market: Going cold turkey

- The looming expiration of the JobKeeper program is the next hurdle for Australia's labor market
- Employment is currently 700K greater than industry-level sales/wage bill ratios imply
- We expect a rebound in sales and hours adjustments to limit the damage, but recognize the potential for a disruptive adjustment in coming months
- Changes to JobSeeker payments/structure will drive the underemployment rate higher

In an effort to minimize the economic damage from the pandemic the Australian government has delivered unprecedented stimulus in the past year, with the fiscal deficit on track to exceed 10% of GDP in FY2020/21. Most of the support was funneled through businesses, with the flagship JobKeeper program providing A\$83 billion in wage subsidies to eligible firms from 2Q through 4Q alone. In addition, payment rates under the JobSeeker program, Australia's more traditional unemployment welfare safety net, were temporarily doubled and eligibility criteria loosened. We have previously written on the consequences of these programs, including [record profit growth across certain industries](#), but the fact the jobless rate peaked at 7.5% and has since moved sharply lower (see today's [February print](#)) highlights, in our view, the effectiveness of these measures in limiting more wide-spread joblessness.

Both initiatives have been watered down in recent quarters, but the expiration of JobKeeper and changes to JobSeeker later this month are obvious hurdles for the labor market. The impact on employment and utilization is hard to gauge, but in this note we outline our framework for exploring how these looming changes will flow through to the labor market data.

Figure 1: Government support to businesses through COVID-19



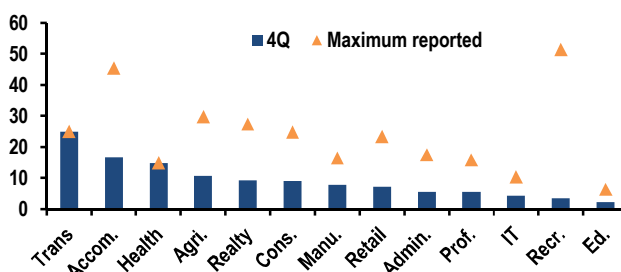
Source: ABS, J.P. Morgan

All good things come to an end

As the recovery has gathered momentum the number of firms requiring or eligible for assistance has dwindled, as evidenced by the sharp drop in government outlays in 4Q (Figure 1). That said, the program remains an important lifeline for the roughly 900K businesses still receiving payment under the scheme (December data). The data are significantly lagged but rough estimates suggest that the payment still indirectly supports close to one million individuals or about 10% of the labor force. Figure 2 shows the industry breakdown of JobKeeper take-up for the final quarter of 2020 with the service-based sectors still heavy users, although usage has declined sharply from the peaks, particularly in the accommodation and recreation sectors.

Figure 2: Industry JobKeeper receipts - current vs. peak

% of total qtrly comp. paid

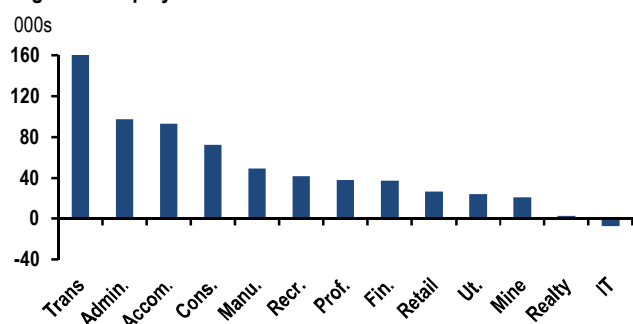


Source: ABS, J.P. Morgan

One approach to estimating how the JobKeeper roll-off may affect the labor market is comparing long-run trends in sales/wage bill ratios and how these have evolved through the pandemic. The logic behind this approach is that sales ultimately govern firms' ability to pay wages, so sectors where ratios remain depressed are most vulnerable to further job-shedding once stimulus rolls off. To do this we run a series of sector-based regressions (quarterly from 2010 to 2019) estimating compensation as a function of sales, then apply the model betas to the most recent industry-level sales data (4Q20). For ease of interpretation we then adjust residuals for average compensation per sector to obtain rough headcount estimates.

At the aggregate level this exercise suggests employment is 700K higher than the level implied by recent sales. The mismatch is most extreme in the transport and accommodation sectors (Figure 3), which as outlined in Figure 2 are among the largest consumers of JobKeeper. The model also suggests the administration, construction, and manufacturing sectors are reporting large employment overshoots, while other industry estimates fall within the model's standard error.

Figure 3: Employment over/undershoot relative to sales



Source: ABS, J.P. Morgan

There are important caveats to this exercise. Throughout the pandemic average hours worked have been an important mechanism through which firms have adjusted capacity to match swings in demand. As a result hours worked fell significantly in 2020, which has supported employment relative to sales. In addition, model estimates are based on depressed sales levels, which naturally lowers the equilibrium level of labor demand. This underestimates labor demand early in the recovery, and overlooks firms' preference to tweak hours rather than change headcount. Even a modest increase in sales, for instance back toward the 2019 average, would shrink the overshoot toward 200K. Given Australia's elevated household saving rate and our expectation for real GDP growth to remain robust in 2021, it's likely sales growth continues to move higher in the medium term and realign the sales/wages ratio more closely with the long-run average. Regardless, the expiration of JobKeeper will be a headwind and we look for a meaningful deceleration in employment growth from April.

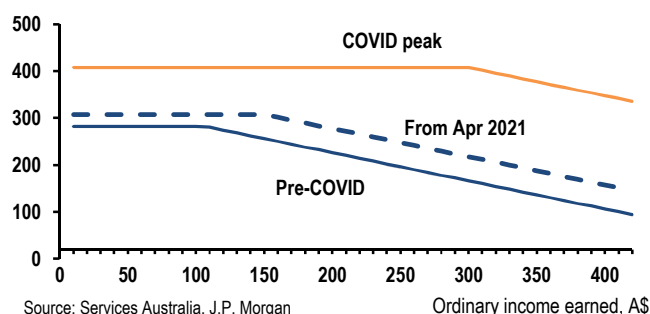
Underemployment now biased higher

Alongside the sun-setting of JobKeeper, the enhanced JobSeeker benefit also faces significant changes from April 1. Specifically, the Coronavirus Supplement, which is equivalent to a maximum 20% reduction in the current payment, will expire at the end of the month. A modest, albeit permanent increase to the fortnightly payment will limit some of the damage, but total welfare payments are still set to fall materially (Figure 4). In addition the income level for means testing welfare payments will be lowered, while job search requirements will become more arduous.

We suspect enhanced welfare payments suppressed the supply of hours by some employed individuals. This owes in large part to the structure of the supplement, which unlike the standard payment is not means-tested, and instead only has the prerequisite that an individual receives \$1 from the standard JobSeeker scheme. While nuanced, this is an important feature as it directly influences marginal supply of labor for hourly workers, shifting the curve higher in a parallel fashion.

Figure 4: JobSeeker payment schedule by income earned

Weekly payment, A\$

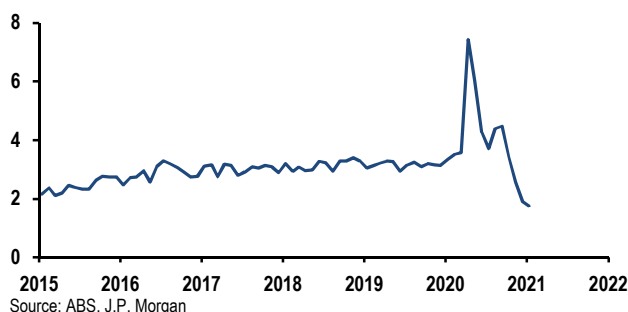


Source: Services Australia, J.P. Morgan

This creates disincentives for labor supply at the lower end of the income distribution and, in our view, was a decisive factor in the downshift in the underemployment rate since mid-2020. To be clear, underemployment remains elevated, but has declined materially faster than the jobless rate, resulting in a historically narrow spread between the two utilization metrics (Figure 5). This outcome is particularly surprising given employment growth has been strongest in part-time jobs with annual growth in full-time employment still negative.

Figure 5: Gap between unemployment and underemployment rates

%-pts



Source: ABS, J.P. Morgan

The impact of the cessation of the government programs will become evident in the data around midyear. The government has recently announced more targeted measures to supersede these initiatives, but with these programs having materially smaller price tags and much narrower scope the economic offset will be minimal. As a result, we expect the end of JobKeeper to stall the downtrend of the jobless rate, while changes to JobSeeker are likely to be captured in the underemployment and participation rates.

Economic Research Note

Update on machine learning applied to BCB communication

- We apply a more robust and easily replicable method of natural language processing to BCB's communication
- The FinBERT model captures the sentiment of the CO-POM's minutes since 2005; our previous method only applied after the change in communication of 2016
- In addition, the model allows the extension of our analysis to the Quarterly Inflation Report (QIR)
- The larger sample and broader set of documents should facilitate further data analyses of the potential impact of BCB communication

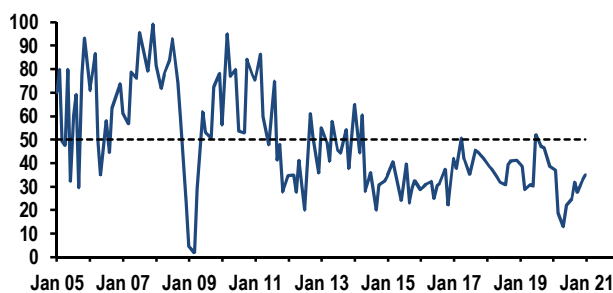
Last year, we added a new tool for our Brazil data and policy watching: a [natural language processing \(NLP\)](#) quantification of the central bank's minutes. Back then, we said that the next steps for our investigation would be to extend the analysis to more documents, incorporate new tools, and use this analysis for market variables. In this note, we focus mainly on the first two and discuss the third, leaving the door open for more research.

We created our previous model using a supervised learning approach for sentiment detection. In summary, we removed uninformative "stopwords" and added our own views of the BCB's vocabulary to produce the outcome. In this note, we update our sentiment identification tools to keep up with the recent developments in NLP applying an adaptation of Google's [BERT \(Bidirectional Encoder Representations from Transformers\)](#) for financial language called FinBERT to the BCB's communication. This new tool allows us to run an unsupervised model that is pre-trained in financial vocabulary (for more information, see the technical appendix).

The new model is more robust and can capture sentiment before the minutes were changed in 2016, something our previous model couldn't do (Figure 1). This wider scope of the FinBERT model for the BCB's communication allows us to extend the analysis to the Quarterly Inflation Reports released by the central bank, and has potential applications for other types of communication as well.

Figure 1: New model - FinBERT for minutes since 2005

% probability of positive sentiment



Source: Google, Prosus AI, BCB and J.P. Morgan

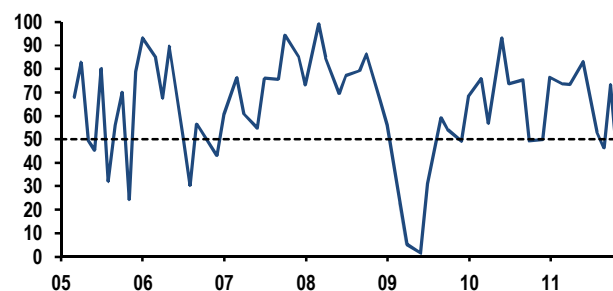
Out with the old, in with the new

One of the main advantages of the new model is that it captures the sentiment in the BCB minutes before the format change of 2016. We thus can use the FinBERT on BCB minutes since 2005 and Inflation Reports since 2007. With this, we now have a longer time series, facilitating the use of this tool in other quantitative analysis. Our old model was unable to capture the BCB's views in the longer pre-2016 documents, having a sample of 37 meetings and covering only the most recent cycle of low growth (2017 onwards), while the new one gives a sample four times as large, covering different economic cycles.

This new modeling method captures two different eras of the Brazilian economy. In the 2000s, a period of high growth, falling inflation, and strong fiscal accounts, sentiment tended to be more positive on average, except during the GFC. In the 2010s, particularly in the second half of the decade, sentiment was more negative, also to be expected given weak growth, inflation busts and booms, and fiscal deficits during that period.

Figure 2: FinBERT - modeling minutes from 2005 to the end of 2011

% probability of positive sentiment



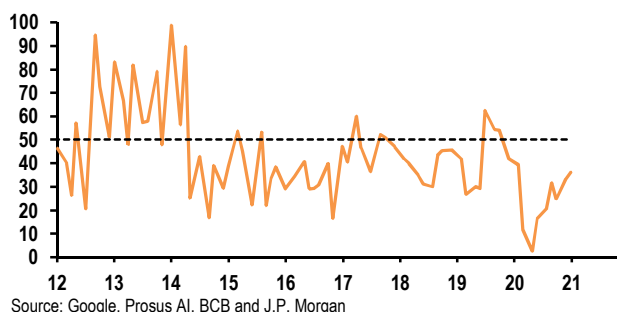
Source: Google, Prosus AI, BCB and J.P. Morgan

With that in mind, on top of the new series of sentiment conveyed by the minutes that covers the whole period since 2005, we added two series that look into the minutes separately from 2005 to 2011 and from 2012 onwards (Figures 2 and 3).

While the changes in sentiment over time are exactly the same, this allows us to better grasp the level of sentiment relative to the cycle.

Figure 3: FinBERT - modeling minutes from 2012 onwards

% probability of positive sentiment

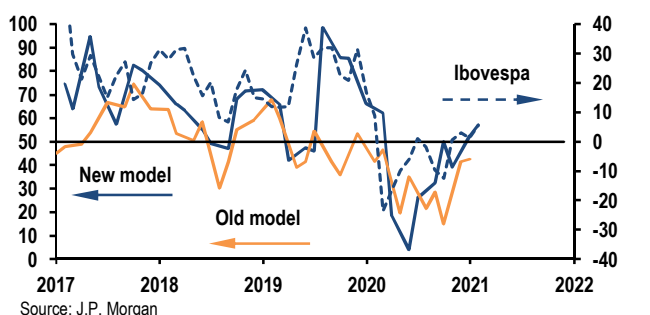


To compare with the old model, we also run the new model starting in 2017. The output of the new and old models is broadly consistent with two main periods of divergence: at the beginning of 2017, when the country was emerging from the recession as prospects for a rebound were high; and in mid-2019, when the social security reform was approved and the COPOM reinforced the importance of the reform agenda for growth and inflation prospects. We think that the new model is more consistent with overall expectations during those periods, as proxied by the Ibovespa changes during that period (Figure 4).

Figure 4: NLP models and Ibovespa as a proxy for sentiment

% probability of positive sentiment

%oya



QED it works on QIRs, too

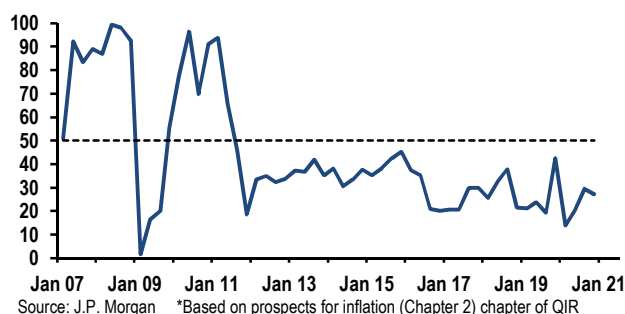
Finally, we also applied the same tool to the Quarterly Inflation Reports (QIR) since 2007 (Figure 5). The QIRs contain a wide variety of information, including boxes with specific studies, and have been published in different formats over time. In this case, as this document needs more treatment, the FinBERT modeling is done specifically in the inflation prospects (chapter 2) section of the QIR.

Unfortunately, there is no other centralized source with a corpus of speeches from the BCB authorities. Also, the post-

meeting statements of the COPOM are either composed of a few phrases, which wouldn't be enough to provide a clear sentiment signal, or more recently are included in full in the minutes released a week later and thus wouldn't be more useful than using the minutes alone. As a result of the way the BCB conveyed information up to now, the extension to the QIR is probably the most that can be done with our improved sentiment analysis tool.

Figure 5: FinBERT - modeling on Quarterly Inflation Report (QIR)*

% probability of positive sentiment



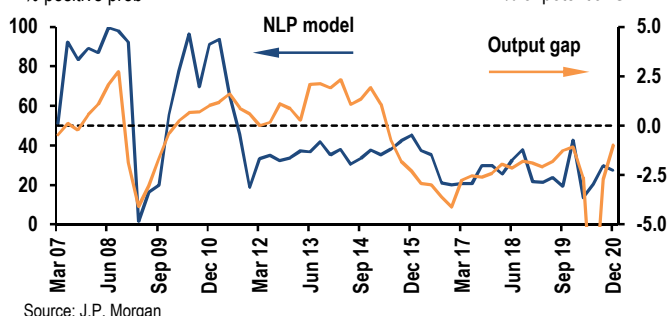
What's next?

In summary, this new method gives us a more robust quantitative tool for analysis for two main reasons. First, it provides a larger data sample that covers different cycles of the Brazilian economy. Second, it yields plausible results for all years since 2005.

Figure 6: QIR sentiment and output gap

% positive prob

% of potential GDP



The new NLP series allows us to use the sentiment conveyed in the minutes of the last 16 years and of the QIR of the last 14 years in the analysis of a broad set of economic data. For example, we compare the quantitative measure of the BCB's perception of the state of the economy as captured by our model with the output gap (Figure 6). These two measures broadly fluctuate together, but diverged persistently between 2012 and 2015 with the BCB perceiving the economy to be in worse shape than the output gap would suggest. These years of divergence were accompanied by a [de-anchoring of inflation expectations](#) and rising inflation.

In this spirit, we believe that the next steps should be focused on verifying whether COPOM sentiment is useful to predict the behavior of financial variables and the consensus view of economists and whether it anticipates fluctuations in economic variables. Also, the generality of the tool and the fact that it was created for a financial vocabulary means that it also could have applications in other types of communications, such as financial/economic news and institutional investors' reports on the economic and market outlook.

Technical appendix: The model in a nutshell

BERT is a language model introduced by [Google AI](#) in 2018 that is capable of learning contextual relations between words in a text. In many tasks involving natural language processing, it is necessary to deal with large amounts of sequences, each composed of words with different relevance or meaning in the general context of a text. Representing these contextual relationships computationally is a challenge since words must be converted into vectors to be used as input for algorithms.

Some methods were then developed to deal with this challenge. One important method, which underlies the functioning of BERT, is known as [Attention Mechanism](#). The basic idea behind this mechanism is that it enables a model to consider only the most relevant parts of the input sequence, e.g., only the highlights that best describe the information of a given text. Words more relevant for context receive greater scores than those with low relevance, and therefore the model is able to “pay attention” only to the most meaningful words.

Another innovation of this new model is that it can read a given sequence of words all at once, in both directions (left-to-right and right-to-left) and is also able to learn the context of a single word according to all of its surrounding words (left and right of the word). This bidirectional approach improves the prediction of words from a text. Also, BERT was pre-trained in a huge set of words, the [BooksCorpus](#) (800M words) and English Wikipedia (2,500M words).

One of its adaptations, [FinBERT](#), is the one we currently use to perform sentiment analysis of most BCB communications. The FinBERT then applies the new method to the financial markets. Its main purpose is not only to represent and predict financial vocabulary, but also to classify words as positive, negative, or neutral in a specific domain.

Three financial corpuses were used to train this new version: [TRC2-financial](#), which includes over 40,000 financial documents; [Financial PhraseBank](#), the main sentiment analysis dataset, consisting of 4,845 English sentences selected from financial news and annotated as positive, negative, or neutral by people with backgrounds in finance and business; and

[FiQA Sentiment](#), a dataset created for the International World Wide Web 2018 Conference on financial opinion mining and question answering challenge.

For more technical information regarding the methods described above, please check the links provided throughout the note.

The authors wish to thank Verena Saeta, of Banco J.P. Morgan S.A. for her contribution to this report.

United States

- **The FOMC maintained accommodative policy even with forecasts for core inflation above 2%**
- **Consumer spending boomed in January before weather-related drop in February**
- **Expect more weak February reports due to weather drag**
- **But March should be a strong month, helped by EIPs**

The stage still looks set for strong growth this year. The stimulus packages passed in December and March should provide a meaningful boost to growth and virus-related developments generally remain favorable, with vaccines continuing to be distributed and new COVID-19 cases trending lower. The recovery won't be a straight shot, however, and it looks like severe winter weather in February depressed activity. But this disruption should be temporary, and we think growth will pick up again in March.

The FOMC's outlook for this year turned much rosier between the December meeting (before the stimulus package was passed late in the month) and the March meeting this week. The median SEP forecast for 2021 real GDP growth was revised up from 4.2% to 6.5% while the median forecast for the 4Q21 unemployment rate was revised down from 5.0% to 4.5%. The median forecast also now looks for 2.2% core PCE inflation this year followed by 2.0% in 2022 and 2.1% in 2023. Despite this upgraded outlook and a median forecast that now looks for core inflation at or above the target over the next few years, the FOMC kept monetary policy very accommodative. The FOMC will continue with its recent pace of asset purchases and gave no indication that a change was coming any time soon. The median SEP forecast also assumes that policy rates stay on hold at the zero lower bound across the current forecast horizon, which goes through 2023.

FOMC still very accommodative

At its March meeting, the FOMC left all of its policy levers on a maximally accommodative setting. This occurred even as it acknowledged both stronger incoming data and an improved growth outlook. Of note, while seven Committee participants now look for a hike by the end of '23—up from five in December—that wasn't enough to move the closely-watched median forecast, which still looks for unchanged policy rates for the next three years. Chair Powell's remarks downplayed the significance of these interest rate forecast "dots"—saying "don't read too much" into them—though by no means was his press conference hawkish. In particular, Powell said it was not yet time "to talk about talking about" tapering. With policy rates on hold for a long time, tapering

will be the next important development for monetary policy, though the Committee and Chair Powell gave no indication of when that will happen or what the "substantial further progress" criterion means in more detail.

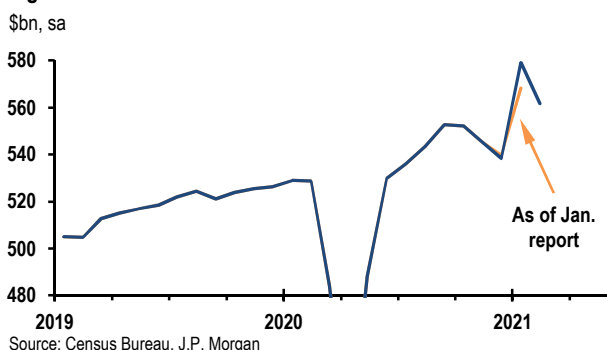
Since the last Summary of Economic Projections in December, Committee participants have generally revised up their growth outlook for this year significantly (6.5% vs. 4.2%), though their growth revisions for the next two years are modest. The same is true for the labor market outlook. The core inflation forecast for this year was revised up notably to show a two-tenths overshoot, though that bump subsides next year. Powell stressed again that this year's inflation developments should be viewed as transitory. While a lasting legacy of the forecasted growth bump this year is a lower unemployment rate by the end of the forecast horizon in '23 (3.5% now vs. 3.7% in December) this revision isn't a sea-change. The favorable but modest revisions to the unemployment rate beyond this year may explain why the median FOMC participant saw only a modest one-tenth of a percentage point upward revision to the core inflation outlook for '22 and '23. The limited flow-through of this year's expected growth spurt into the labor market and inflation may partly explain the fairly modest change in the '23 dots. The FOMC's more modest outlook for growth over the next two years relative to private forecasters could reflect differing assumptions about fiscal policies beyond the American Rescue Plan.

Retail sales trend strong through the noise

The February retail sales report—net of revisions—was favorable, in spite of the weakness in the most recent month. Retail sales tumbled 3.0% in February; this disappointed our forecast and was even more of a downside surprise for consensus expectations. However, there was a sizable upward revision to the already-strong January figure, which was revised from a 5.3% increase to a 7.6% jump. This left February sales 4.3% above the December level (Figure 1). The figures for the important retail control category told a similar story: down 3.5% in February, after January was revised up from a 6.0% rise to an 8.7% jump, leaving the February level 5.0% above December's.

The support to spending from the \$600 stimulus checks, which went out in early January, is now even more apparent. And it looks like much of the stimulus boost in January benefited retailers of discretionary products, with double-digit percentage gains that month for sellers of furniture, electronics, and sporting goods. The weakness last month likely was due to some payback for an exceptionally strong January, which probably was aggravated by the unseasonable weather in Texas.

Figure 1: Retail sales and food services

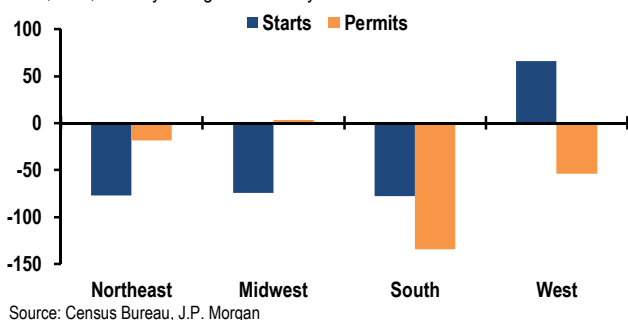


February weakness about the weather

The negative effects from the bad February weather also are evident in a range of other reports. The February declines in housing starts and permits were larger than expected, with severe weakness in the South where weather-related disruptions were most acute (Figure 2). The February data likely exaggerate any underlying weakening in the housing market, although we do think that things may be cooling relative to a very robust period late last year, in part because mortgage rates have moved up recently. Along these lines, the NAHB's measure of homebuilder sentiment hit its lowest level since last August in the March report, while remaining very strong relative to its long-term history.

Figure 2: Housing starts and permits by region

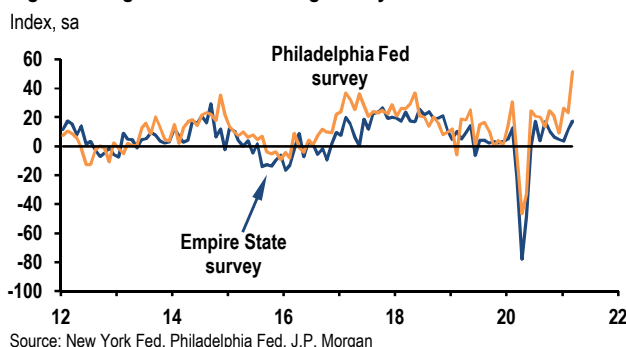
000s, saar, monthly change in February 2021



The February IP data also disappointed, with total production falling 2.2%. There were large drops reported for both manufacturing and mining output while utilities production surged due to increased heating demand. In the Fed's press release, it indicated that manufacturing output would have been down 0.5% in February absent the severe weather, a much more modest decline than the 3.1% drop that actually occurred during the month. The manufacturing sector also had to contend with some supply chain issues associated with parts shortages in February in addition to the severe weather.

The March business survey data are off to a strong start, with solid improvement in the Empire State manufacturing survey and a boom in the manufacturing survey reported by the Philadelphia Fed (Figure 3). These support our view that, apart from some temporary disruptions, the manufacturing sector likely will keep recovering over time.

Figure 3: Regional manufacturing survey headlines



We expect next week's reports to be similar to those from the past week. February data should be restrained by the bad weather and we forecast a 0.9% drop in real consumption during the month along with declines in home sales and softness in the durable goods report for the month. But we look for the PMI surveys to firm in their flash March reports. For the February PCE price data, we forecast a 0.3% increase for the headline (1.7%oya) and a 0.16% move up for the core deflator (1.5%oya).

March 2021: Out like a lion

We expect most economic indicators to pick up again in March following the weak February. The (presumed) shift to more normal weather should help activity bounce back, and we think continued vaccine rollout and related developments associated with COVID-19 will help activity continue to normalize in many sectors. The payout of economic impact payments (EIPs or "stimulus checks") associated with the American Rescue Plan also should help stimulate the economy late in the month. The Treasury reported almost \$250bn of EIPs sent out on March 17, the first day of distribution. The experience with the earlier rounds of stimulus checks since the pandemic began suggests that spending should jump shortly after people receive their payments. March data for many of the key government releases won't be available for some time, but we will be watching high-frequency "alt-data" for signs of a pickup in activity. Several of these measures [have been firming lately](#).

Data releases and forecasts

Mon Existing home sales

Mar 22
10:00am

	Nov	Dec	Jan	Feb
Total (mn, saar)	6.59	6.65	6.69	<u>6.20</u>
%m/m	-2.1	0.9	0.6	<u>-7.3</u>
%oya nsa	22.0	24.0	15.8	<u>8.8</u>
Months' supply (nsa)	2.3	1.9	1.9	
Single-family	2.2	1.8	1.8	
Median price (%oya)	14.6	12.6	14.1	

We forecast that existing home sales declined 7.3% to 6.20mn saar in February. Existing home sales tend to lag the related data on pending home sales, and with pending home sales weakening lately, existing home sales likely were due to move lower at some point soon. And with severe winter weather disrupting activity in February, we think that existing home sales dropped during the month.

Tue New home sales

Mar 23
10:00am

	Nov	Dec	Jan	Feb
Total (000s, saar)	839	885	923	<u>860</u>
%m/m	-13.1	5.5	4.3	<u>2.1</u>
%oya nsa	18.0	20.4	18.6	<u>11.1</u>
Months' supply	4.1	4.1	4.0	
Median price (%oya)	6.6	7.2	5.3	

We believe that new single-family home sales dropped 6.8% to 860,000 saar in February. We see a number of signs that severe winter weather disrupted activity in February and we think that the weather also led to a pullback in new home sales during the month.

Wed Durable goods

Mar 24
8:30am

%m/m, sa	Nov	Dec	Jan	Feb
New orders	1.3	1.2	3.4	<u>-0.2</u>
Ex transportation	1.0	1.8	1.3	<u>-0.7</u>
Nondef cap. gds ex air	1.2	1.5	0.4	<u>0.0</u>
Shipments	0.4	2.1	1.9	<u>-2.0</u>
Nondef cap. gds ex air	0.4	1.1	1.8	<u>-0.5</u>
Inventories	0.9	-0.2	-0.3	

We forecast that new orders for durable goods declined 0.2% in February while related shipments dropped 2.0%. We think that many of the main underlying details within the report will be weak, in part as payback from some of the gains reported for January, but also because there are signs that severe winter weather and supply chain disruptions negatively impacted activity in February. We do think, however, that aircraft orders continued to climb in February off of very low recent readings, helping to prevent a larger drop in the headline orders reading for the month. For the key data on core capital goods—which exclude defense and aircraft—we estimate that orders were unchanged in February while shipments declined 0.5%.

Markit manufacturing PMI (flash)

Wed
Mar 24
9:45am

Index, sa	Dec	Jan	Feb	Mar
Composite ¹	57.1	59.2	58.6	<u>60.0</u>
New orders (30%)	56.5	59.9	57.4	
Output (25%)	58.3	60.5	57.8	
Employment (20%)	52.2	54.7	56.3	
Sup. del. (15%, inv.)	32.5	33.4	27.1	
Stks of purch (10%)	49.7	51.3	47.2	
New export orders	50.7	54.0	53.6	
Backlogs of work	52.3	52.4	55.0	
Output prices	58.6	60.4	60.6	
Input prices	65.3	65.1	73.2	
Stocks of finished goods	48.4	48.1	48.2	
Quantity of purchases	53.4	54.8	53.7	
ISM-weighted composite ²	56.8	58.6	58.3	

1. Weights in parentheses

2. Attributes ISM-composite weights (equal weights) to corresponding PMI series

We look for the Markit manufacturing PMI's headline composite to increase 1.4pts to 60.0 in the flash March report. The regional manufacturing survey data already reported for the month signal firming in the sector relative to February and we think that this also will be evident in the national survey data reported by Markit.

Markit services PMI (flash)

Wed
Mar 24
9:45am

Index, sa	Dec	Jan	Feb	Mar
Business activity	54.8	58.3	59.8	<u>60.5</u>
Incoming new business	54.6	55.8	57.7	
Employment	53.4	51.1	50.4	
Business expectations	65.4	73.5	66.3	
Input prices	64.7	66.9	70.1	
Prices charged	56.2	58.3	58.5	
Backlogs of work	51.8	50.8	52.5	

We believe that the Markit services PMI's headline activity index increased 0.7pt to 60.5 in the flash March report. We think that the service sector will keep recovering over time as the drag from COVID-19 fades and this could lead to firming in the survey data. Regional March survey data on the services sector already reported by the New York Fed already point to improvement in the sector during the month.

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March 19, 2021

J.P.Morgan**Thu Jobless claims**

Mar 25 Thousands, sa

8:30am

	<u>New claims (wr.)</u>		<u>Continuing claims</u>		<u>Insured Jobless, %</u>
	<u>Wkly</u>	<u>4-wk avg</u>	<u>Wkly</u>	<u>4-wk avg</u>	
Jan 9	927	825	4975	5105	3.5
Jan 16 ¹	875	842	4785	5002	3.4
Jan 23	812	850	4691	4907	3.3
Jan 30	812	857	4558	4752	3.2
Feb 6	848	837	4520	4639	3.2
Feb 13 ¹	834	827	4419	4547	3.1
Feb 20	736	808	4337	4459	3.1
Feb 27	754	793	4142	4355	2.9
Mar 6	725	762	4124	4256	3.0
Mar 13 ¹	770	746			
Mar 20	<u>725</u>	<u>744</u>			

1. Payroll survey week

We forecast that initial jobless claims filings in regular state programs dropped 45,000 to 725,000 during the week ending March. With vaccine distribution and the reduction in new COVID-19 cases likely allowing the labor market to recover over time, we think that claims filings will trend lower through some of the noise in the weekly figures. And with this in mind, we look for the jump in claims reported for the week ending March 13 to be reversed in the upcoming report.

Thu Gross domestic product

Mar 25 %ch, q/q, saar, unless noted

8:30am

	<u>Adv</u>	<u>Sec</u>	<u>Thi</u>
	<u>3Q20</u>	<u>4Q20</u>	<u>4Q20</u>
Real GDP	33.4	4.0	4.1
Final sales	25.9	3.0	3.0
Domestic final sales	29.8	4.4	4.4
Consumption	41.0	2.5	2.4
Equipment	68.2	24.9	25.7
Intellectual property	8.4	7.5	8.4
Nonres. structures	-17.4	3.0	1.1
Residential investment	63.0	33.5	35.8
Government	-4.8	-1.2	-1.1
Exports	59.6	22.0	21.8
Imports	93.1	29.5	29.6
Inventories (ch, \$bn)	-3.7	44.6	48.0
Net exports (pct.pt.contr.)	-3.2	-1.5	-1.6
Inventories (pct.pt.contr.)	6.6	1.0	1.1
Core PCE price index	3.4	1.4	1.4
(%oya)	1.4	1.4	1.4
GDP chain price index	3.5	2.0	2.1
(%oya)	1.1	1.3	1.3
Adj. corporate profits	27.4		-22.0
(%oya)	3.5		-21.5

We look for the BEA to revise its estimate of 4Q real GDP growth up from 4.1% to 4.2% saar. Since the BEA's latest release on February 25, the updated source data suggest that the revisions to the main growth components should be pretty modest in the upcoming report. We forecast small upward revisions to personal consumption expenditures, intellectual property products investment, residential investment, government spending,

and net exports and small downward revisions to nonresidential structures investment and business inventories, with the net effect slightly positive for growth.

The BEA also will release its first estimate of 4Q corporate profits in the upcoming GDP release. In recent quarters, profits have been boosted by government subsidies, but BEA data show a drop in subsidies between the third and fourth quarters. We think that this will result in a drop in corporate profits, with total profits falling 22.0% saqr in 4Q.

Fri Personal income

Mar 26 %m/m, sa, unless noted

8:30am

	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>
Personal income	-1.2	0.6	10.0	-7.6
Wages & salaries	0.5	0.5	0.7	-0.3
Consumption	-0.6	-0.4	2.4	-0.6
Real consumption	-0.6	-0.8	2.0	-0.9
PCE price index	0.0	0.4	0.3	0.3
Core	0.00	0.30	0.25	0.16
Mkt-Based Core	0.0	0.2	0.3	
Core (%oya)	1.4	1.4	1.5	1.5
Mkt-Based Core (%oya)	1.3	1.3	1.4	
Saving rate	12.5	13.4	20.5	13.8

We forecast that real consumer spending fell 0.9% in February while nominal spending declined 0.6%. There are several reports (including the retail sales data) that point to a drop in spending in February that should reverse a portion of the surge in spending reported for January (that likely will be revised up in the BEA data based on revisions already released in the Census Bureau's retail sales report). It looks like spending fell in February as consumers got further removed from the surge in income associated with stimulus checks that were paid out early in January and also as severe winter weather disrupted activity in parts of the country around the middle of the month.

While some stimulus checks were sent out in February, it looks like the overwhelming majority of payments associated with the December stimulus package went out in January. With a drop in income from these payments, we think that total personal income fell 7.6% in February.

We also look for a modest decline in wages and salaries during the month (-0.3%) based on softness in related data from the BLS's employment report. With income expected to fall much more than spending in February, we forecast that the saving rate fell about 7%-pt during the month, reversing almost all of the January jump.

With February price data in the CPI and PPI already reported, we estimate that the headline PCE price index rose 0.3% during the month while the core PCE deflator increased 0.16%. Year-ago PCE inflation readings should stay below the FOMC's 2% inflation target in February, with the headline PCE price index expected to be up 1.7%oya and the core index forecasted to be up 1.5%oya.

Sources: ADP/Moody's Analytics, BEA, BLS, Census Bureau, Conference Board, Department of Labor, Federal Reserve Board, ISM, J.P. Morgan forecasts, NAHB, NAR, NFIB, NY Fed, Markit, Philadelphia Fed, Standard & Poor's, University of Michigan, US Treasury

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Economic Research**Global Data Watch**

March 19, 2021

J.P.Morgan**International trade (adv.)**

\$bn, samr, unless noted

	Nov	Dec	Jan	Feb
Balance of goods, Cen. basis	-86.1	-83.2	-84.6	<u>-86.4</u>
Exports (%samr)	1.1	4.6	1.5	<u>1.6</u>
Imports (%samr)	3.1	1.4	1.6	<u>1.8</u>

We estimate that the nominal goods balance widened from -\$84.6bn in January to -\$86.4bn in February, with exports increasing 1.6% and imports rising 1.8%. Price increases in February should boost the nominal trade flow data, but we think that the volume of exports was little changed between January and February while the volume of imports rose somewhat (the advance report will only contain nominal figures).

Business inventories (adv.)

%m/m, sa, unless noted

	Nov	Dec	Jan	Feb
Wholesale	0.0	0.6	1.3	<u>0.4</u>
Retail inventories	0.7	1.7	-0.5	<u>-1.2</u>
Ex autos	0.3	1.9	-0.1	<u>-0.1</u>
Autos	1.8	1.1	-1.5	<u>-3.8</u>

We estimate that nominal wholesale inventories increased 0.4% in February while nominal retail inventories dropped 1.2%. While an increase in prices during the month could help lift the nominal figures, we also saw a drop in production during the month (likely tied to severe weather and supply chain disruptions) that could lead to weakening in inventories. Industry data on motor vehicle inventories already point to a drop in related inventories during the month.

Consumer sentiment

Mar 26

10:00am

	Jan	Feb	Pre Mar	Fin Mar
Univ. of Mich. Index (nsa)	79.0	76.8	83.0	<u>83.5</u>
Current conditions	86.7	86.2	91.5	
Expectations	74.0	70.7	77.5	
Inflation expectations				
Short term	3.0	3.3	3.1	
Long term	2.7	2.7	2.7	

We forecast that the University of Michigan consumer sentiment index will be revised up 0.5pt to 83.5 in the final March report, representing a 6.7pt jump relative to the final February reading. The recent rise in sentiment likely reflects favorable virus-related developments and we think that this improvement will continue over time. We also think that the distribution of economic impact payments during the second half of March may help boost consumer attitudes.

Review of past week's data**Empire State survey (Mar 15)**

Diffusion indices, sa

	Jan	Feb	Mar	
General bus. conditions	3.5	12.1	<u>44.9</u>	17.4
New orders	6.6	10.8		9.1
Shipments	7.3	4.0		21.1
Unfilled orders	-5.5	2.6		4.0
Prices paid	45.5	57.8		64.4
Prices received	15.2	23.4		24.2
Composite	53.0	54.2		55.9

The Empire State manufacturing survey's headline increased from 12.1 in February to 17.4 in March, beating expectations by a few points. Overall, it looks like the survey firmed in March and our ISM-weighted composite for the survey picked up from 54.3 in February to 55.9 in March. Details within the survey were mixed and included a jump in the shipments measure but some moderation in the indexes for new orders and employment. The recent firming in the survey is broadly consistent with the idea that the manufacturing sector is picking up as the drag from COVID-19 fades.

Retail sales (Mar 16)

%m/m, sa

	Dec	Jan	Feb	
Total	<u>-1.0</u>	-1.3	<u>-5.3</u>	7.6
Ex autos	<u>-1.8</u>	-2.1	<u>-5.9</u>	8.3
Ex autos and gas	<u>-2.5</u>	-2.9	<u>-6.1</u>	8.5
Building materials	<u>-0.1</u>	-0.3	<u>-4.6</u>	4.9
Control group ¹	<u>-2.4</u>	-2.8	<u>-6.0</u>	8.7
Ex. autos and building	<u>-1.9</u>	-2.2	<u>-6.0</u>	8.5

1. Total ex. gasoline, automotive dealers, building materials, and food serv.

The February retail sales report—net of revisions—was favorable, in spite of the weakness in the most recent month. Retail sales tumbled 3.0% in February; this disappointed our forecast and was even more of a downside surprise for consensus expectations. However, there was a sizable upward revision to the already-strong January figure, which was revised from a 5.3% increase to a 7.6% gain. This left the level of February sales 4.3% above the December level. The figures for the important retail control category told a similar story: down 3.5% in February, after January was revised up from a 6.0% rise to an 8.7% increase, leaving the February level 5.0% above the December level. The support to spending from the \$600 stimulus checks, which went out in early January, is now even more apparent. And it looks like much of the stimulus boost in January benefited retailers of discretionary products, with double-digit percentage gains that month for sellers of furniture, electronics, and sporting goods. The weakness last month was likely due to some payback for an exceptionally strong January, which was probably also aggravated by the unseasonable weather in Texas.

After the latest retail sales report, it looks like real consumer spending was up 2.8% in January and down 1.0% in February. Given that the \$1400 ARP stimulus checks will start going out in the second half of March, it's likely we will see an even bigger boost to consumer spending in coming months, starting with March.

Sources: ADP/Moody's Analytics, BEA, BLS, Census Bureau, Conference Board, Department of Labor, Federal Reserve Board, ISM, J.P. Morgan forecasts, NAHB, NAR, NFIB, NY Fed, Markit, Philadelphia Fed, Standard & Poor's, University of Michigan, US Treasury

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Economic Research**United States**

March 19, 2021

J.P.Morgan

Import prices (Mar 16)

%m/m, nsa, unless noted

	Dec	Jan	Feb	
Import prices	1.0	1.4	1.0	1.3
%oya	-0.3	-0.9	1.0	3.0
Ex-fuel import prices	0.4	-0.8	0.9	0.4
%oya	1.9	-2.5	2.6	2.8

The import price index increased 1.3% in February, modestly beating expectations. A jump in fuel prices boosted the headline, but the nonfuel price index also posted a solid gain for the month (0.4%) and there were February increases across the main subcategories underlying the nonfuel aggregate. The nonfuel price index has picked up noticeably lately and was up 2.8% oya as of February; much of this recent firming has been associated with nonfuel industrial supplies, including a surge in prices of building materials.

Industrial production (Mar 16)

%m/m,sa,unless noted

	Dec	Jan	Feb	
Industrial production	-1.3	1.0	-0.9	1.1
Manufacturing	-0.9	0.7	-1.0	1.2
Motor vehicles & parts	-0.2	-0.1	-0.7	0.1
High-tech	-0.4	-1.5	2.0	-0.3
Mfg ex motor vehicles	-1.0	0.8	-1.1	1.3
Business equipment	-0.7	0.5	-0.4	1.5
Capacity utilization	74.9	74.6	75.6	75.6
Manufacturing	73.9	73.7	74.6	74.4

The February IP data were much weaker than expectations, with total output falling 2.2% in February and manufacturing output dropping 3.1%. We had thought that severe winter weather would lead to weakness in the data on manufacturing and mining (while boosting demand for utilities and related output) but it appears that the effects of the weather were larger than we had anticipated. The Fed's press release indicated that manufacturing output would have fallen about 0.5% in February absent the effects of the weather. The manufacturing sector also had to deal with some supply chain issues during the month which likely weighed on activity. In terms of the other main aggregates away from manufacturing, mining output tumbled 5.4% in February while utilities output surged 7.4%. We likely will see at least a partial reversal of the February changes in March given expected normalization in the weather and over time we believe industrial production will keep trending higher as the recovery continues.

Homebuilders survey (Mar 16)

Sa

	Jan	Feb	Mar	
Housing market	83	84	83	82
Present sales	90	90		
Prospective buyer traffic	68	72		

The NAHB survey's headline declined from 84 in February to 82 in March, with this latest reading a point below our forecast and two points below consensus expectations. Increases in mortgage rates (and/or other issues) may have dampened homebuilder sentiment lately, but it remains at a high level. The March NAHB reading was the lowest reported since last August but it was still very strong by historic standards. Several other housing indicators have behaved similarly lately, with levels of activity remaining strong despite some recent moderation.

Business inventories (Mar 16)

%m/m, sa, unless noted

	Nov	Dec	Jan	
Inventories	0.5	0.6	0.3	
Manufacturing	0.8	0.3	0.1	
Wholesale	0.0	0.5	1.3	
Retail inventories	0.7	1.9	-0.6	
Ex autos	0.3	2.2	-0.2	
Autos	1.8	1.1	-1.4	
Inventory/sales ratio	1.32	1.32	1.30	

Business inventories increased 0.3% in January. This gain was in line with expectations (set after at least preliminary figures had been released for the underlying components) but the earlier data on retail inventories were revised down on net.

Housing starts (Mar 17)

Million units, saar

	Dec	Jan	Feb	
Starts	1.68	1.67	1.58	1.52
Single-family starts	1.32	1.46	1.14	1.19
Multifamily starts	0.36	0.35	0.42	0.45
Permits	1.70	1.89	1.75	1.68

Housing starts fell 10.3% to 1.421mn saar in February while housing permits dropped 10.8% to 1.682mn saar. These drops were larger than what we and the consensus had expected, but it looks like severe weather depressed the February data, so these declines probably are not indicative of the underlying trends. That said, many of the regions had declines in starts and/or permits in February; so, the weather may not have been the only factor weighing on February activity.

Philadelphia Fed survey (Mar 18)

Diffusion indices, sa

	Jan	Feb	Mar	
General bus. Conditions	26.5	23.1	22.0	51.8
New orders	30.0	23.4		50.9
Shipments	22.7	21.5		30.2
Inventories	12.6	20.0		12.1
Prices paid	45.4	54.4		75.9
Prices received	36.6	16.7		31.8
Composite	61.8	60.5		65.3

The March Philadelphia Fed manufacturing survey came out much stronger than expectations. The headline jumped from 23.1 to 51.8, reaching one of the highest levels on record. Many details similarly showed strong improvement, and our ISM-weighted composite—derived from the measures of orders, shipments, employment, delivery times, and inventories—increased from 60.5 in February to 65.3 in March. The two regional manufacturing surveys that have released March data so far show firming in the sector during the month, with solid improvement in the Empire State survey and a boomy increase in the Philadelphia Fed survey. And overall, we think that activity in the manufacturing sector will keep picking up over time.

Sources: ADP/Moody's Analytics, BEA, BLS, Census Bureau, Conference Board, Department of Labor, Federal Reserve Board, ISM, J.P. Morgan forecasts, NAHB, NAR, NFIB, NY Fed, Markit, Philadelphia Fed, Standard & Poor's, University of Michigan, US Treasury

Focus: Post-viral seasonal adjustment disorder?

Virtually all economic data are reported on a seasonally adjusted basis, that is to say, they are filtered to remove normal seasonal variability. As we discuss in this Focus, one concern is that the seasonal adjustment process might interpret last spring's dramatic swings in activity as partly due to normal seasonal variation. This would lead to some potentially large distortions to the seasonally adjusted data reported this spring. However, we don't expect this will occur. A step in the seasonal adjustment process (the automatic outlier detection routine) should serve to down-weight last spring's developments in calculating seasonal adjustment factors.

Observers of the US economy may recall there was a similar concern about the economic data in the aftermath of the Great Recession. At the time, our analysis concluded that this seasonal "echo effect" [existed but was quantitatively small](#). The statistical agencies subsequently reached a similar conclusion, noting that seasonal filters "respond accurately to changes in levels, no matter how large, as long as they are fairly continuous," though they also observed that discontinuities resulting from level shifts can be more disruptive.

The shock to activity last spring is probably better described as a discontinuity, and so it may not be safe to assume the seasonal adjustment will work as well after the COVID-19 recession as it did after the Great Recession. However, it appears that last spring's economic shock was so large that it will likely trigger the automatic outlier detection routine to filter out the influence of the pandemic on the seasonal adjustment process.

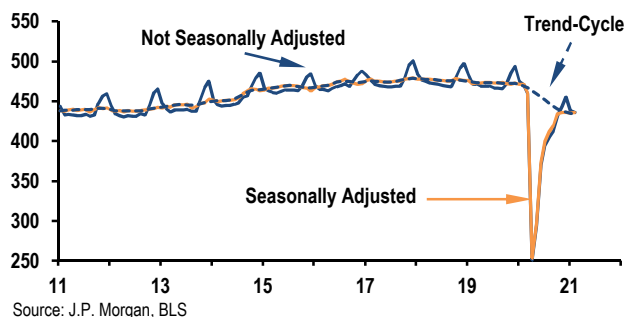
What it is, and why it matters

The automatic outlier detection routine is one component of X-13, a seasonal adjustment package maintained by the Census Bureau. As inputs, X-13 takes a time series of monthly or quarterly frequency, a specification file, and (optionally) additional time series with covariates. The outputs of X-13 include the seasonally-adjusted series and a decomposition of the input time series into trend-cycle, seasonal factors, and an "irregular" component. Unsurprisingly, outliers are part of the irregular component.

The automatic outlier detection routine works by positing that the observed series is generated by a simple statistical model. When an observed data point is extremely unlikely given the model—when it has a *t*-statistic above a critical threshold—the data point is dummied out before estimating the seasonal factors.

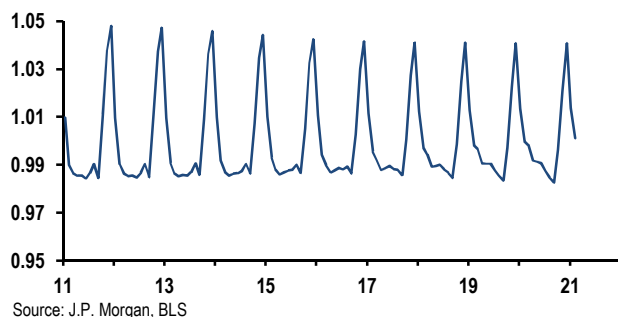
The BLS releases the specification files for every series it seasonally adjusts. Most time series are adjusted at the industry level, so the headline nonfarm payrolls number is not adjusted directly, but is the sum of the adjusted industry-level series. By adjusting at the industry level, the BLS statisticians can account for industry-specific patterns of seasonality and outliers. Interestingly, the BLS does not simply accept the output of the automatic outlier detection as gospel. It has a monthly review process wherein it decides whether to accept all of the flagged outliers, and whether to manually add outliers missed by the automated procedure.

Figure 1: All Employees: Furniture and Home Furnishing Stores
000s



Whether the outliers are flagged by the automated procedure or hand-coded by BLS statisticians, the result is the same: the outliers do not skew the estimation of seasonal factors. We chose a series with the characteristic COVID plunge and applied the X-13 specification provided by the BLS (Figure 1). The seasonally adjusted series plummets in sync with the unadjusted series, but the seasonal factors (Figure 2) are unaffected. Findings were similar for other series.

Figure 2: Seasonal Factors, Furniture and Home Furnishing Stores



What this means is that the seasonal adjustment routine won't interpret last spring's plunge in activity as a feature of ever-evolving seasonal patterns. For that reason this spring's seasonally-adjusted data will not be artificially distorted by statistical echo effects of the COVID-19 recession.

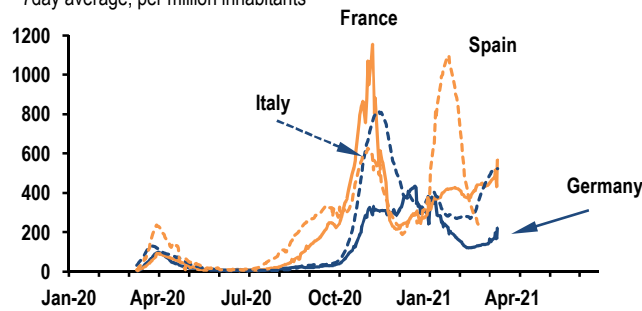
Euro area

- **Downward revision to activity in the near term, due to impact of restrictions related to third wave**
- **Growth still set to rebound smartly as reopening is pushed out to May**
- **Activity to return to pre-COVID-19 level by end of the year, with significant but shrinking country differences**
- **Forecasts hinge on manageable step-up in vaccination pace, with supply unlikely to be a constraint**
- **Noisy path ahead for core inflation**

Difficulties in containing new COVID-19 cases (Figure 1) in Italy, Germany, and France prompted us to revise down our expectations for activity in these countries in March and April. We now expect third-wave effects with associated longer-lasting restrictions to be a near-term drag on activity on 1H21 and to reshuffle growth from 2Q21 to 3Q21, but our forecast still envisages a rapid normalization across the middle of the year, after vaccinations reach a steady state.

Figure 1: COVID-19 new daily cases

7day average, per million inhabitants



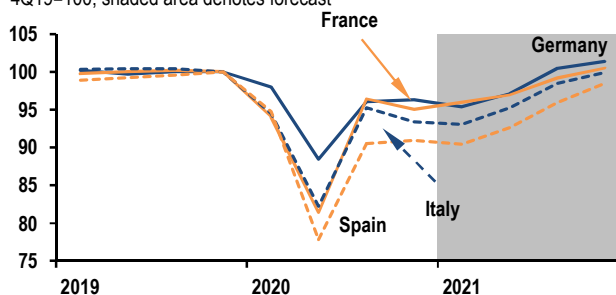
Source: Johns Hopkins University, J.P. Morgan

As we have pushed out the projected reopening to May, we expect activity to rebound strongly as restrictions are gradually removed, in line with previous episodes. Hence, we expect activity to converge to the path we had previously assumed by May/June, and then to return to the pre-COVID-19 level by the end of the year (with significant but shrinking cross-country differences, Figure 2).

Pulling it all together (Table 1), we continue to expect Euro area GDP to contract by 1% ar in 1Q. We then expect a smaller 7.5% ar gain in 2Q, instead of 13%. A stronger 3Q gain (12.5% ar instead of 8.5%) then offsets the lower 2Q print while we leave 4Q growth unchanged (5.5% ar). Our forecast still sees 4Q21 GDP about 1% above the 4Q19 level.

Figure 2: Euro area GDP

4Q19=100; shaded area denotes forecast



Source: Eurostat, J.P. Morgan

Our Euro area projections hinge on a steady but not overly ambitious deployment of vaccines. The steady-state pace implicit in our forecast—which involves a near-tripling of the current pace in the largest Euro area economies—would allow full vaccination of 70%-80% of the population by end-September. This week, after the European Medicines Agency ruled that the AstraZeneca vaccine was safe governments (including Germany, France, and Italy) reintroduced the use of this vaccine after a short-lived precautionary suspension.

Table 1: J.P. Morgan Euro area GDP forecasts

%q/q saar

	1Q21	2Q21	3Q21	4Q21	2021	2022
New	-1.0	7.5	12.5	5.5	5.3	4.9
Old	-1.0	13.0	8.5	5.5	5.8	4.8

Source: Eurostat, J.P. Morgan estimates

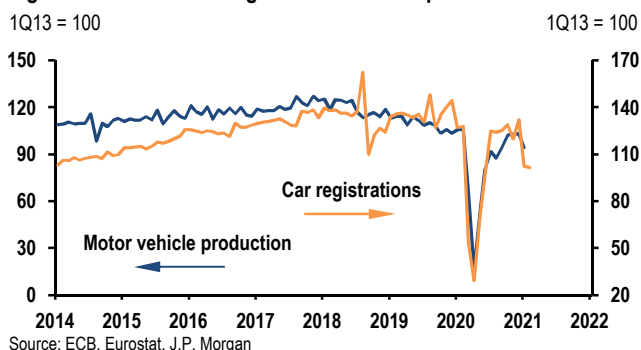
More fundamentally, AstraZeneca has announced further delivery shortfalls for 2Q21, on the order of 60%, compounding a near-66% shortfall during 1Q21. These incremental supply shortfalls have opened a conflict between the EU institutions/national governments and the manufacturer, which at this stage entails a threat to ban exports of AZ vaccines produced in the EU. Despite the uncertainties, [our analysis](#) shows that that vaccine supply is unlikely to be a constraint going forward, as the step up in vaccination required by the summer could be met with other vaccines even under adverse scenarios.

Car registrations fell further in February

Two Euro area activity data releases were published this week. In the first release of hard data for February, car registrations declined 1.1% m/m after a 22.5% plunge in January, which left the February level 21% below the level seen 12 months before (Figure 3). The sharp drop at the start of the year was concentrated in Germany (with the expiration of the temporary VAT cut) and Spain (where some tax incentives disappeared) making the current Euro area number hard to assess in light of the 2H20 recovery. Second, Euro area construction output rose 0.8% m/m in January (-2.3% oya) after a

1.5% decline in December. After a sharp fall last spring, construction rebounded significantly through the summer and has since been on a solid upward trend.

Figure 3: Euro area car registrations and car production



Demand indicators (including retail sales) have been volatile of late across countries due to the ebb and flow of restrictions and specific tax factors. However, we take comfort from production indicators (including IP), which have been trending up at very similar rates across countries.

Euro area core inflation: A noisy path ahead

Euro area headline inflation was stable at 0.9%oya in February (0.1% m/m), while core inflation declined 0.3%-pt to 1.1%oya (-0.1% m/m). The move down in core inflation was driven by both core goods price inflation (-0.5%-pt to 1.0%oya) and services price inflation (-0.2%-pt to 1.2%oya). These declines were offset by a 2.5%-pt increase in energy price inflation to -1.7%oya, while food price inflation eased 0.2%-pt to 1.3%oya.

Three factors dominated the changes in Euro area core inflation at the start of the year. First, the return of the German VAT rate to 19% meant that the 0.4%-pt drag on core inflation effective during 2H20 disappeared (the VAT cut took place in July and lasted six months). Second, delayed winter sales lifted core inflation by 0.3%-pt in January, and this week's details suggest the boost started to fade and was worth 0.2%-pt last month. Finally, new weights in the HICP basket lifted core inflation by 0.4%-pt in January. The impact of this restriction was smaller at 0.3%-pt in February.

These factors will also influence core inflation in the coming quarters. The return of the German VAT rate to 19% will lead to a base effect in 2H21 that should raise Euro area core inflation by 0.4%-pt. The impact of the delayed sales should be short-lived and, in our view, will disappear in March. And, we expect the impact of weight changes to be long-lasting and generate significant inflation volatility through our forecast

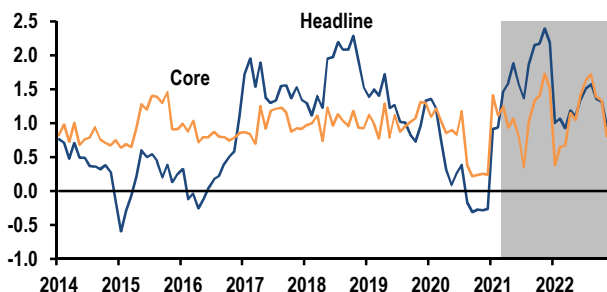
horizon. As for the latter, this distortion was largely driven by package holiday prices.

Overall, we expect that the upward distortion in core inflation seen at the start of the year (0.4%-pt in January) will gradually fade by the spring and will turn negative by the summer (a 0.5%-pt drag in July/August). The distortion will then gradually fade by the end of the year. In 2022, we'll see the opposite pattern. We assume that weights in the basket will be in line with the average over 2020 and 2021 as the economy reopens this year (HICP weights in a given year reflect consumption patterns in the prior year). This means that the related distortion will be smaller next year than it is this year.

Based on these considerations, we expect core inflation to follow a V-shaped pattern this year, reaching a trough of 0.3%oya in July and a peak of 1.7%oya in November. In 2022, a combination of base effects and distortions will trigger a significant fall in core inflation at the start of the year (0.4%oya in January), in our view. Core inflation should then rise significantly to 1.7%oya in July, before receding to 1.0%oya on average in November-December (Figure 4).

Figure 4: Euro area HICP inflation

%oya (shading denotes forecast)



The swings in core inflation this year and next largely reflect temporary factors. Excluding the impact of these temporary forces (which still leaves some noise due to HICP weight base effects), we forecast underlying inflation to rise from 0.8%oya in 1Q21 to 1.2%oya in 4Q22. This increase is driven by diminishing slack in the region and a gradual increase in survey-based inflation expectations to levels seen prior to the virus outbreak.

Data releases and forecasts

Week of March 22 - 26

Output and surveys

Purchasing managers index flash (manufacturing)

		Dec	Jan	Feb	Mar
Wed	Euro area				
Mar 24	Overall region	55.2	54.8	57.9	<u>55.8</u>
10:00am					
9:30am	Germany	58.3	57.1	60.7	
9:00am	France	51.1	51.6	56.1	

Purchasing managers index flash (services)

		Dec	Jan	Feb	Mar
Wed	Euro area				
Mar 24	Overall region	46.4	45.4	45.7	<u>44.2</u>
10:00am					
9:30am	Germany	47.0	46.7	45.7	
9:00am	France	49.1	47.3	45.6	

Purchasing managers index flash (composite)

		Dec	Jan	Feb	Mar
Wed	Euro area				
Mar 24	Overall region	49.1	47.8	48.8	<u>47.6</u>
10:00am					
9:30am	Germany	52.0	50.8	51.1	
9:00am	France	49.5	47.7	47.0	

Between December and February, the PMI moved in a tight range. In March, we expect the PMI to come down to the bottom of that range. This decline will to a large extent be driven by Italy where restrictions were tightened significantly. Further restrictions were also announced in Germany and France. On the other hand, we expect a significant increase in Spain where the PMI was weakest among the main economies of the region in February and where restrictions are less tight in March.

Consumer confidence (prelim)

		Dec	Jan	Feb	Mar
Wed	Euro area (European Commission survey)				
Mar 24	% balance of responses				
11:00am	Consumer confidence	-13.8	-15.5	-14.8	<u>-16.0</u>

Consumer confidence has been broadly stable in recent months. In March, we expect confidence to decline as restrictions were tightened in a number of countries, in particular Italy. But confidence should still remain higher than in November, when restrictions were the tightest since the March/April lockdowns.

National business surveys

		Dec	Jan	Feb	Mar
Fri	German IFO survey				
Mar 26	2000=100, sa				
10:00am	Business climate	92.2	90.3	92.4	<u>92.4</u>
	Business situation	91.3	89.2	90.6	<u>91.0</u>
	Business expectations	93.0	91.5	94.2	<u>94.0</u>

The past month has been mixed, with a faster-than-expected easing of restrictions followed by a sharp pickup in COVID-19 infections, which is now triggering emergency brakes on easing restrictions. Through this, we sus-

pect the IFO was broadly stable. By sector, manufacturing was likely still much firmer than services, as the impact of restrictions on services is larger than the impact of supply constraints of semiconductors on manufacturing, while global factors are still providing strong support to the latter. Finally, we note that linking the surveys to changes in the level of GDP is still hard. Even if the IFO surprises positively, delays in the reopening process in April are likely to weigh on 2Q21 GDP growth.

		Dec	Jan	Feb	Mar
Thu	France (INSEE survey - manufacturing)				
Feb 25	Index				
8:45am	Composite index	94.3	96.0	97.4	
	Index of past production	4.8	6.2	5.0	
	Expected output - personal	4.8	7.8	10.2	
	Expected output - general	-4.8	-9.6	-7.6	

		Dec	Jan	Feb	Mar
Fri	Italy (ISAE survey)				
Mar 26	2015=100, sa				
10:00am	Producer confidence	96.4	95.6	99.0	

		Dec	Jan	Feb	Mar
Thu	Belgium (BNB survey)				
Mar 25	% balance of responses, sa				
3:00pm	Overall	-8.4	-7.5	-4.4	
	Manufacturing	-5.1	-5.4	-4.0	
	Commerce	-24.6	-25.0	-18.2	
	Construction	-13.0	-8.0	-2.3	

Real GDP

		1Q20	2Q20	3Q20	4Q20
Fri	Spain (final)				
Mar 26	%q/q, sa	-5.2	-17.9	16.4	<u>0.4</u>
9:00am	%q/q, saar	-19.4	-54.5	83.6	<u>1.6</u>
	%oya	-4.2	-21.6	-9.0	<u>-9.1</u>
	GDP components (%q/q, saar)				
	Private consumption	-23.8	-59.7	109.4	<u>10.2</u>
	Government consumption	5.6	1.3	4.8	<u>17.1</u>
	Fixed capital formation	-18.4	-60.3	119.1	<u>-11.7</u>
	Exports	-26.3	-80.0	185.1	<u>-5.6</u>
	Imports	-21.1	-73.9	160.4	<u>1.5</u>

Financial activity and public finance

Money and credit data

		Nov	Dec	Jan	Feb
Thu	Euro area				
Mar 25	M3 (%m/m sa)	0.8	1.4	0.5	
10:00am	M3 (%oya)	11.0	12.4	12.5	
	M3 (%oya 3mma)	10.6	11.3	12.0	
	Loans (%oya) ¹	4.8	4.7	4.5	
	Loans (m/m, €bn) ¹	40.2	42.7	11.9	
	Of which				
	To households	17.7	23.6	14.0	
	To nonfinancial corporates	7.3	12.9	-0.2	

¹ Loans to nonbank private sector, adjusted for securitization

Source: European Commission, Eurostat, ECB, FSO, Bundesbank, IFO, INSEE, ISAE, Istat, INE, CBS, BNB, Markit, and J.P. Morgan forecasts

Review of past week's data

Output and surveys

Construction output

	Nov	Dec	Jan	
Euro area				
%m/m, sa	2.3 2.6	-3.7 -1.5		0.8
%oya, sa	-0.4 0.0	-2.8 0.1		-2.3

Producer prices

	Dec	Jan	Feb
Germany			
%m/m, nsa	0.8	1.4	0.7
%m/m, sa	0.8 0.7	1.2	0.6
%oya, nsa	0.2	0.9	1.9

External trade and payments

Source: European Commission, Eurostat, ECB, FSO, Bundesbank, IFO, INSEE, ISAE, Istat, INE, CBS, BNB, Markit, and J.P. Morgan forecasts

Foreign trade

	Nov	Dec	Jan
Euro area			
€ bn, values, sa			
Trade balance	24.9 24.7	27.5	24.2
year earlier	19.4 19.3	23.4 23.2	18.5
Exports	189.4 189.3	191.6	186.1
%m/m	1.9 1.8	1.1 1.2	-2.8
Imports	164.5 164.6	164.0	161.9
%m/m	2.3 2.4	-0.3 -0.4	-1.3

Inflation

Consumer prices

	Dec	Jan	Feb
Euro area (final)			
HICP (%m/m, nsa)	0.3	0.2	<u>0.2</u>
HICP (%oya, nsa)	-0.3	0.9	<u>0.9</u>
HICP (%oya, core-XX) ¹	0.2	1.4	<u>1.1</u>
HICP (%m/m, ex-tob.)	0.3	0.2	<u>0.2</u>

See Euro area essay for details.

	Dec	Jan	Feb
France (final)			
%m/m, nsa	0.2	0.2	-0.1 0.0
Index ex tobacco, nsa	104.1	104.2	104.1 104.2
%oya, nsa	0.0	0.6	0.4 0.6
HICP (%oya)	0.0	0.8	0.7 0.8

	Dec	Jan	Feb
Italy (final)			
%m/m, nsa	0.2	0.7	<u>0.1</u>
%oya, nsa	-0.2	0.4	<u>0.6</u>
HICP (%oya, nsa)	-0.3	0.7	<u>1.0</u>

Hourly labor costs

	2Q20	3Q20	4Q20
Euro area			
Nominal, %oya, working-day adjusted			
Total	3.5 4.0	4.5 1.3	2.5
Industry	3.4 3.7	4.3 1.1	2.2
Services	3.8 4.2	4.5 1.2	2.7
Construction	3.6 4.2	2.4 2.5	3.2

Japan

- **Large-firm sentiment points to continued firming in both manufacturing and services activity**
- **Exports fell in February due to the Lunar New Year holidays, while imports jumped on solid domestic demand**
- **CPI picked up with the rise in core goods prices in February, suggesting upside risk to our inflation forecast**
- **The BoJ fine-tuned its operation of QQE with YCC, as a result of assessment**

Data released this week indicate that economic activity continues to strengthen, even under the state of emergency. In the March Reuters Tankan survey of large-firms, the current conditions and outlook DIs increased further, pointing to an ongoing recovery in business activity for both manufacturers and non-manufacturers. Real exports fell sharply in the February trade data, largely due to the volatility associated with the Chinese Lunar New Year holiday. Indeed, the January-February average remained firm, as we expected, pointing to a continued recovery in exports supported by firm global demand.

In addition to resilient tech exports, which had led Japan's exports recovery after the pandemic shock, capital goods shipments to the DM appeared to gain some momentum. This is consistent with the solid recovery in foreign orders shown in this week's machinery orders. Meanwhile, real imports were firmer than expected with imports of electrical machinery increasing. Based on the stronger-than-expected imports print reflecting the solid recovery of domestic demand, we revise up 1Q21 GDP-based real imports growth from the previous 6% ar to a 12% ar. Although the net trade contribution was revised down consequently from +0.7%-pt to -0.3%-pt, we don't change our 1Q real GDP forecast reflecting some inventory adjustment.

At the monetary policy meeting this week, the BoJ stayed on hold while upgrading somewhat its assessment of economic growth. The key focus was its announcement of three major changes in the management of QQE with YCC, most of which were as expected: (1) The BoJ announced an Interest Scheme to Promote Lending to compensate financial institutions for lost profits in the case of a further rate cut, and (2) made clear that the band set for the 10yr yield target would be $\pm 0.25\%$. Also, (3) to make their purchases more flexible, the Bank removed the guidelines on the purchase amounts for ETFs (JPY6tn) and J-REITs (JPY90bn), while maintaining their upper limits.

These change reflected the conclusion of the BoJ's "assessment" that the current QQE with YCC is effective, and that it

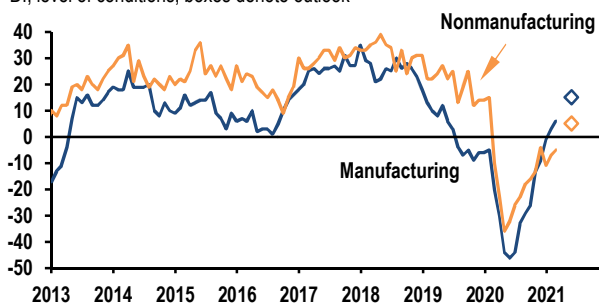
is important to continue with monetary easing in a sustainable manner and respond nimbly and effectively when needed. In addition, the Bank found that the overshooting commitment is powerful and appropriate to maintain as a makeup policy. The BoJ's decision is meant to strengthen the sustainability of its low-for-long policy with many revisions to its operations, which we see as fine-tuning. We don't expect the changes would allow the BoJ to achieve the price stability target in a shorter period than the current easing, or reduce the side effects significantly.

Business sentiment improved further

The current conditions DIs rose for both large manufacturers and nonmanufacturers in the Reuters Tankan survey, albeit more modestly than expected, with a 3pt rise to 6 and 2pt rise to -5, respectively (Figure 1). The outlook DIs also point to brighter prospects, but continued to diverge between manufacturers and nonmanufacturers. The manufacturers' three-months-ahead outlook DI rose 9pts to 15, the highest since January 2019, while the nonmanufacturers' outlook DI points to an incomplete recovery, with a 10pts rise to 5, leaving the index 10pts below the February 2020 pre-pandemic level.

Figure 1: Reuters Tankan large firm sentiment

DI, level of conditions, boxes denote outlook



Source: Reuters, J.P. Morgan

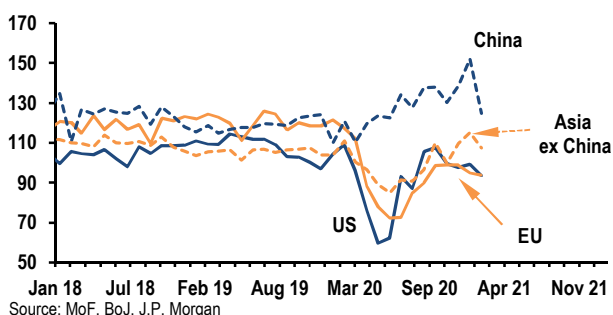
In the details of the manufacturing sector, the current conditions DI for materials, such as chemicals and steel & nonferrous metals, moved sideways at 0, while manufactured products, such as electronics and autos, posted another 7pt gain to 10, with autos bouncing back to 16, after a temporary plunge to -7 in January. The auto sector looks for the recovery to continue, with the index for the three-months-ahead outlook rising to 23. Among nonmanufacturers, retailers posted a strong gain, with a 15pts jump to 23, the highest since October 2019, reflecting a recent rise in mobility. The current-condition DIs for wholesalers and other services remained depressed, broadly unchanged from February, but they also look for a recovery with a large jump in the outlook DIs. We expect business conditions for nonmanufacturers to improve in coming months, as the government plans to lift the state of emergency on March 21, gradually easing business restrictions.

Real exports fell, while imports jumped

Partly reflecting the effect of the Chinese Lunar New Year holiday, the BoJ's real exports fell a steep 5.6%*m/m*, *sa* in February, as expected, after a 3.3% increase in January. This left the January-February average 4.2% annualized above the average in 4Q when the index jumped 61.1% *ar*. The February decline mainly was due to a plunge in shipments to Asia, especially to China, which had led Japan's exports recovery after the pandemic demand shock (Figure 2). This weakness largely is attributable to the Lunar New Year holiday, but also may reflect softening domestic demand in China. Although real exports of semiconductors to Asia remained relatively firm in February, shipments of capital goods, including semiconductor-making equipment, fell sharply. Exports to the US and the Euro area also edged down in the month. Although auto exports remained weak, capital goods exports appeared to gain some momentum. Taking into account a further recovery in exports in response to firm global demand, this outcome is broadly in line with our forecast of a firm 10% *saar* rise in real GDP-based exports.

Figure 2: Real exports by destination (monthly)

2015=100, deflated and *sa* by J.P. Morgan



On the other hand, real imports were much stronger than we expected, reflecting the solid recovery of domestic demand. Imports jumped 6.6%*m/m*, *sa* in February after a 2.1% rise in January, leaving the January-February average a large 24.4% annualized above the 4Q average. The February gains were broad-based, but, in particular, real imports of semiconductors were firmer; they continued to rise solidly after the sharp fall in the middle of 2020, contrary to our expectation for a decline in shipments from Asian countries due to supply shortages.

Core orders fell after three consecutive monthly rises

Private core machinery orders (domestic private orders excluding those from electric utilities and for ships) fell 4.5%*m/m*, *sa* in January, after posting three consecutive monthly gains since October. Orders from both manufacturers and nonmanufacturers fell in January, the first month of the

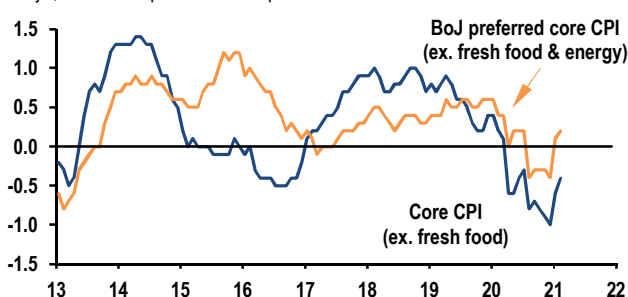
renewed state of emergency, but the larger decline came from nonmanufacturers, down 8.9%. The weakness in nonmanufacturers' orders was broad-based, with 10 out of 12 industries posting monthly declines. On the other hand, the 4.2% decline in manufacturers' orders was attributable to a few industries, such as transportation machinery other than autos and chemicals, while the majority, 11 out of 17 industries, posted monthly gains. Although renewed business restrictions appear to have weighed down nonmanufacturers' orders, the overall trend in manufacturers' machinery orders remains solid.

CPI picked up

The BoJ's preferred core CPI inflation measure (ex. fresh food and energy) rose 0.1%-pt to 0.2%*oya* in February, firmer than our expectation at 0.1% (Figure 3). Although services price inflation was unchanged from January at 0.0% under the state of emergency, core goods prices picked up to 0.4%*oya*, reflecting the ongoing recovery of domestic demand. Meanwhile, core CPI deflation (ex. only fresh food) continued to ease with a smaller drag from energy prices, marking a 0.4%*oya* decline in February after a 0.6% drop in January.

Figure 3: Nationwide CPI

%*oya*, excl. the impact of consumption tax rate hike and free education



Ahead, both goods and services prices will likely bottom out, given the government's announcement on Thursday that the state of emergency in the Tokyo metropolitan area will be lifted on March 21, as scheduled. However, we continue to expect nationwide BOJ core CPI inflation (ex. fresh food and energy) to fall into negative territory again at -0.1%*oya* in 1Q and decline further to -0.8%*oya* in 2Q, before returning to 0.0% in 4Q20, largely dragged down by policy-induced factors, such as the resumption of the travel subsidy program and a reduction of mobile phone charges requested by Prime Minister Suga. Having said that, based on this firmer-than-expected result, we think the risks to our inflation outlook skew to the upside.

Data releases and forecasts

Week of March 22–26

Wed Markit manufacturing/services PMI

Mar 24 Diffusion index, sa

	Dec	Jan	Feb	Mar
9:30am				
Manufacturing (headline)	50.0	49.8	51.4	<u>52.0</u>
Services (business activity)	47.7	46.1	46.3	<u>47.8</u>

We look for the March Markit manufacturing PMI's headline composite to improve 0.6pt to 52.0. Supported by strong global manufacturing demand, production activity appears to continue recovering, leading to a further improvement in business sentiment. We expect the service PMI's activity index to rise more than that for the manufacturing PMI, up 1.5pts to 47.8. With expectations that the state of emergency will be lifted soon, mobility has risen in recent weeks, supporting the start of a normalization in service activity.

Fri Tokyo consumer prices

Mar 26 %oya, 2015-based

	Dec	Jan	Feb	Mar
8:30am				
Overall	-1.2	-0.5	-0.3	
Core (ex fresh food)	-0.9	-0.5	-0.3	<u>0.0</u>
Ex fresh food and energy	-0.4	0.2	0.2	<u>0.2</u>

In the March Tokyo CPI report, we forecast that the core CPI (ex. fresh food & energy), which gauges the underlying inflation trend, will rise 0.2%oya, unchanged from the previous month. We expect that inflation momentum will likely be broadly unchanged from the previous month under the state of emergency, although economic activity continues to recover. Since the negative contribution of energy prices will be smaller, the core CPI (ex. fresh food) likely will improve 0.3%-pt to 0%oya in March, in spite of the core CPI (ex. fresh food & energy) holding steady.

Review of past week's data

Machinery orders (Mar 15)

%m/m, sa

	Nov	Dec	Jan	
Total	-1.5	10.5	—	-1.7
Core private domestic orders ¹	1.1	5.3	<u>0.0</u>	-4.5
Manufacturing	-1.6	10.3	—	-4.2
Core nonmanufacturing	3.4	4.9	—	-8.9
Public	0.6	15.6	—	-27.9
Foreign	4.8	3.1	—	6.4

1. Domestic private sector, ex for ships and from utilities

See the main essay.

Reuters Tankan survey (Mar 17)

Diffusion index

	Jan	Feb	Mar	
Manufacturing	-1	3	<u>8</u>	6
Nonmanufacturing	-11	-7	<u>-2</u>	-5

See the main essay.

Customs-cleared international trade (Mar 17)

%m/m, sa, unless noted

	Dec	Jan	Feb	
Balance (¥bn sa)	512	719	393	551 <u>47</u> -39
Exports %m/m	0.3	2.3	4.4	3.8 <u>-1.6</u> -4.7
Imports %m/m	1.8	0.7	6.9	7.3 <u>4.6</u> 4.7
Balance (¥bn nsa)	750	745	-324	-325 <u>579</u> 217
Exports %oya	2.0		6.4	<u>-0.4</u> -4.5
Imports %oya	-11.6	-11.5	-9.5	<u>9.7</u> 11.8
BoJ real exports	-0.9	3.3	3.3	<u>-3.0</u> -5.6
BoJ real imports	-1.0	-1.1	3.0	2.1 <u>0.5</u> 6.6

See the main essay.

Consumer prices (Mar 19)

%oya, 2015-based

	Oct	Nov	Feb	
Overall	-1.2	-0.6	—	-0.4
Core (ex. fresh food)	-1.0	-0.6	<u>-0.3</u>	-0.4
Core (ex. fresh food and energy)	-0.4	0.1	<u>0.1</u>	0.2

See the main essay.

Source: BoJ, CAO, EJCS, JADA, JCSA, JDSA, JFA, JLM, VMA, Markit, METI, MHLW, MILT, MoF, Reuters, Statistics Bureau, J.P. Morgan forecast

Canada

- Recent virus news has disappointed, with cases rising and vaccinations lagging the US
- But recent data have been strong, with January retail sales beating expectations and February looking robust
- The housing market also remains strong, with housing permit issuance surging to all-time highs
- We raise our forecast for 1Q real GDP growth from 2% to 5%

New COVID-19 cases are on the rise again in Canada, and the number of vaccine doses delivered is lagging far behind the US, apparently due to the dependence on global supply chains (Figure 1). Nonetheless, the recent economic data have been firmer than we expected. High frequency indicators from Google and others have been on an uptrend like their US counterparts, and the lagging traditional data have beaten expectations, leading us to raise our forecasts for 1Q growth.

Figure 1: COVID-19 vaccinations

doses as % of population

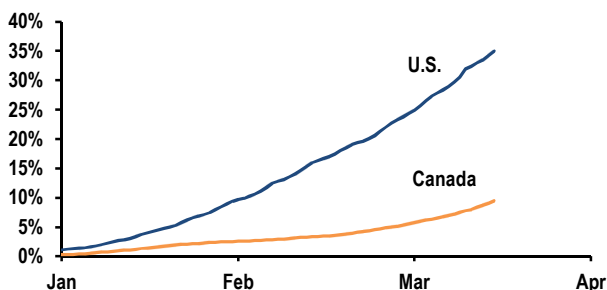
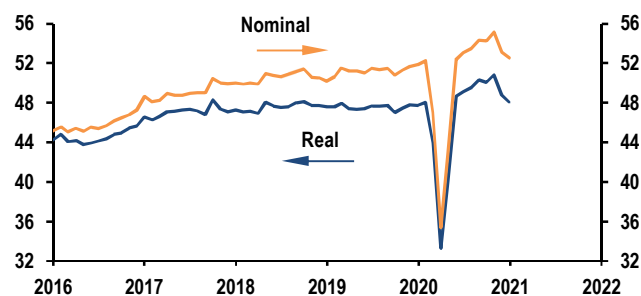


Figure 2: Real and nominal retail sales

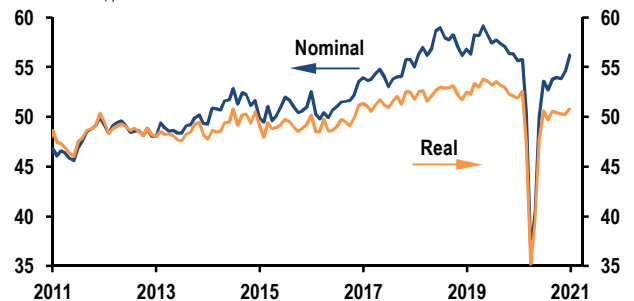
billions, C2012\$, sa



In this week's releases, nominal retail sales fell by 1.1% in January (Figure 2), but still soundly beat Statistics Canada's preliminary estimate of a 3.3% decline. February estimates also look strong so far, and consumer confidence measures are running at decade-high levels in March. Meanwhile, real manufacturing sales increased 1.1% in January (Figure 3).

Figure 3: Real and nominal manufacturing sales

billions of C\$, sa



Housing starts pulled back in February, declining to 245k units from 284k units in January, but remained elevated. Housing permits surged 10.6% in January to a new all-time high (Figure 4). On the strength of all of these data, we raise our real GDP growth forecast for 1Q21 to 5% saar from 2%.

Figure 4: Residential building permits

thousand units, sa

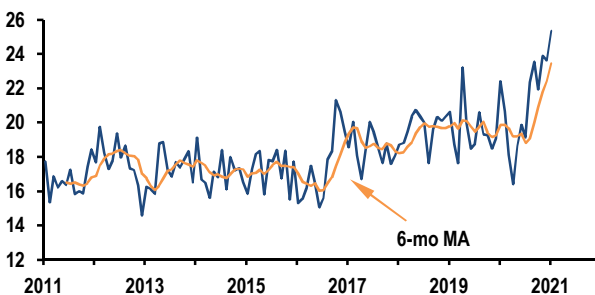
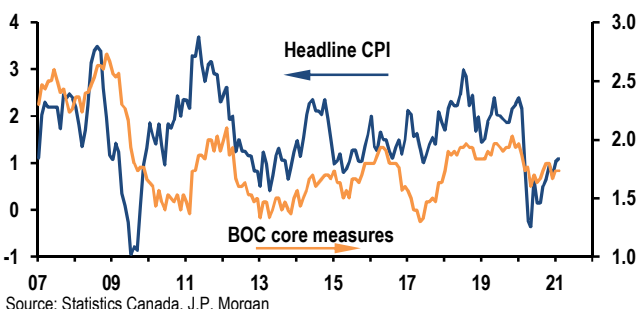


Figure 5: Headline CPI and BoC preferred core CPI measures

%oya

%oya, average of three



Elsewhere in the data, headline CPI accelerated a tick to 1.1%oya in February, while the average of the BoC core measures matched January's rate of increase at 1.73%oya (Figure 5). We expect headline inflation to continue to firm over the middle two quarters of 2021 on base effects and energy prices, but we expect the underlying core measures to remain more subdued. Based on our house forecasts for oil prices, we expect gasoline prices will continue to push up the

headline CPI through mid-2022. We expect a strengthening exchange rate to have an offsetting impact on core goods prices through 2021.

Data releases and forecasts

Week of March 22 – 26

No upcoming releases.

Review of past week's data

Housing starts (Mar 15)

Saar

	Jan	Feb	Mar	
Total (000)	229.4	228.7	282.4	284.4
(%m/m)	-11.9	-12.6	-23.1	24.4
(%oya)	-16.6	16.3	-30.6	31.5

Manufacturing report (Mar 15)

%m/m, sa, unless noted

	Nov	Dec	Jan	
Sales	-0.4	-0.9	1.3	2.5
New orders	-1.3	-8.4	8.9	1.7
Unfilled orders	-4.0	-0.3	0.4	-0.3
Inventories	0.8	-0.6	-0.5	1.9
Inventory-ships ratio	1.62	1.60	1.59	1.56

Existing home sales (Mar 15)

Sa

	Dec	Jan	Feb	
Total, %m/m	-1.3	-7.2	8.4	2.0
%oya	32.3	47.0	46.9	35.0

Consumer price index (Mar 17)

%m/m nsa, unless noted

	Jan	Feb	Mar	
Total CPI	-0.2	0.6	-0.4	0.5
%oya	0.7	1.0	-1.0	1.1
CPI-common (%oya)	1.3	1.3		1.3
CPI-median (%oya)*	1.9	2.0		2.0
CPI-trim (%oya)*	1.8	-2.0	1.9	1.9
Ex food & energy	-0.4	0.5	-0.3	0.2
%oya	1.1	1.4	0.8	

*seasonally adjusted

New house prices (Mar 18)

Nsa

	Dec	Jan	Feb	
Total, %m/m	0.3	0.7	0.5	1.9
%oya	4.6	5.4	5.5	7.0

Retail sales (Mar 19)

%m/m sa, unless noted

	Nov	Dec	Jan	
Total	-1.8	1.7	-3.4	-3.7
%oya	4.5	-4.5	4.2	-0.5
Ex autos	-2.9	2.8	-4.1	-3.9
%oya	-9.4	9.3	-3.4	3.6
Ex autos & gasoline	-3.5	3.4	-4.6	-4.3
%oya	14.0	13.9	-6.6	6.9
Real retail sales	-1.7	1.5	-3.6	-4.0
%oya	-7.3	7.1	-2.8	2.2

Source: Statistics Canada, Ivey Business School, CMHC, Markit, Teranet/National Bank of Canada, CREA, CFIB, Bank of Canada, J.P. Morgan forecasts

Mexico

- We expect Banxico to stay put at 4% next week
- Market jitters and EM central bank hikes to figure prominently
- 1H March inflation to remain close to 4% next week; January GDP and February in focus as well
- Bilateral agenda: Migration and vaccines imports

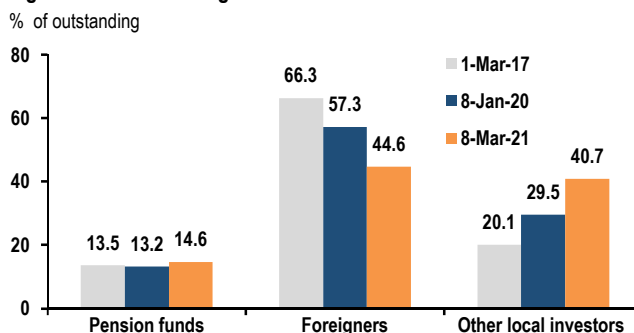
Last week we changed our call for the monetary policy rate in Mexico, removing the two 25bp cuts that would have brought the policy rate to 3.5% by 3Q21. Instead, we now expect Banxico to keep rates at 4% this year, and probably until the Fed is ready “to talk about talking about tapering,” in Powell’s words this week. While inflation expectations moving higher is the obvious reason behind our new call—we now expect inflation at 3.8% by year-end, two-tenths above our previous estimate—it would be myopic not to consider the recent jitters in emerging markets and the lingering uncertainty related to global inflation dynamics in addition to domestic institutional concerns as important factors behind our policy update.

The “inflation argument” of our new call is relatively straightforward given stubborn core goods inflation dynamics in an environment of energy-price pressures that threaten to push inflation back above 4% sooner than originally expected. Thus, next week’s 1H March CPI will be watched closely.

However, the “markets argument” is more encompassing as it refers to themes that have been covered extensively over the last few months in Banxico’s policy committees and in several forums in which Governor Diaz de Leon has been present: The steepening of the term structure of rates on the back of inflation fears abroad; exchange rate pressures related to risk-off sentiment in emerging markets; and the risk of an acceleration in the unwinding of long-term bond positions (Mbonos) by foreign investors. At the beginning of March, foreigners held 45% of the total outstanding, 12%-pts less than right before the start of the pandemic sell-off, and close to 22%-pts below the maximum level in 2017 (Figure 1).

There could be some disagreements within the board on how concerned to be about the recent surge in energy prices (and commodities prices in general) or expected consumer price dynamics later this year—particularly after the 2Q hump. We expect the sharp adjustments across domestic asset classes to figure prominently in next week’s decision, particularly in the context of this week’s FOMC, and the rate hikes in Brazil, Russia, and Turkey.

Figure 1: Mbono holdings



Source: Banxico. Maximum holding of foreigners on 1 March 2017.

The fact that the February policy statement resulted in a unanimous 5-0 vote to cut 25bp might complicate Thursday’s decision and our call for an on-hold posture, but we believe a neutral-to-hawkish stance will prevail. The risk of hikes is something that we might address later in the year, but that will depend on external financing pressures, and whether a fiscal reform is considered for the 2022 budget in September.

Banxico stands out among EM central banks for its limited forward guidance details, which may add some uncertainty in later meetings, but global market behavior in the context of the pandemic, vaccination programs and fiscal stimulus, and domestic events in 2Q (from the risk of rating downgrades to midterm elections in June) should keep the board on the sidelines, even if a unanimous decision is not a sure thing.

Inflation back near 4%

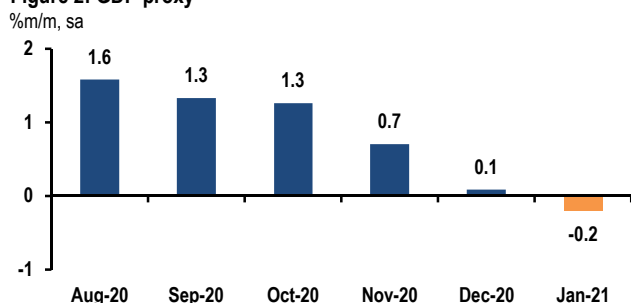
As said, inflation has come under pressure recently, and is set to fully unwind the decline between October and December of last year. We project that consumer prices rose 0.35%2w/2w in 1H March, pushing up annual inflation to 3.9%. Core inflation should also print at 3.9%oya, as divergences between the main two subcomponents remain firmly in place. Core goods inflation is near 5.6%oya and should stay there for now. In particular, we continue to see a gradual decline in processed food inflation offset by persistent pressures on nonfood goods prices.

As we have pointed out before, these pressures likely reflect the persistent demand shift away from services and into goods, as well as supply-chain disruptions that are becoming visible globally. We expect nonfood goods inflation at 4.8%, the highest since January 2018. Last but not least, energy prices have increased rapidly, and, per our high-frequency indicators, both gasoline and gas prices firmed again in 1H Mar, particularly gas prices, which we project jumped roughly 4%2w/2w. This should suffice to maintain the upward trend in non-core inflation; we expect it to print at 4%oya following negative prints at the turn of the year.

Transitory weakness in Jan GDP proxy

Next week we will get an update on a handful of activity-related indicators that should continue to support our call for a slow start to the year. The January GDP proxy should point in the direction of our recently-revised 1Q GDP forecast, which looks for a small annualized contraction. IP held up relatively well in January, rising 0.2%/m, sa in the face of a 0.5% drop in factory production, as construction output jumped 1.5%/m. However, we expect that services continued to decline and dragged down overall activity. First, manufacturing-related services likely performed poorly—these have been the ones driving the recovery in overall services. Furthermore, we expect the tepid recovery in domestically-driven services to be interrupted by the imposition of tough lockdown measures in many states during January. Our high-frequency indicators suggest activity declined in the majority of the service sectors we track. Altogether, we project that services output dropped 0.4%/m and the GDP proxy declined 0.2%/m (Figure 2).

Figure 2: GDP proxy



Source: INEGI and J.P. Morgan forecast for Jan 2021.

The other couple of releases due next week should reinforce these trends, namely, that activity struggled in 1Q21, and that domestic demand continues to lag the recovery. We project that retail sales dropped 1.6%/m January on the heels of a steep fall in December, consistent with timely data pointing to weakness in private consumption at the turn of the year. Meanwhile, while we expect external demand to continue to spearhead the recovery this year, it likely remained soft through February. We think that disruptions from natural gas supply shortages likely weighed on manufacturing exports last month, and we forecast a roughly 1%/m drop. Supply-chain issues may continue to disrupt production ahead, as suggested by some reports this week, but we think that the underlying demand for manufactures remains strong and the sector should accelerate in coming months, particularly in the context of the US fiscal stimulus.

Migration and vaccines

Vaccination efforts in Mexico have been slow, resulting in very disappointing progress and lagging most of the world in

terms of administered doses. With the US having administered 35 per 100 people and Mexico at 4 doses per 100, it was a matter of time before the Mexican government started to pressure the US to secure additional shipments, and the Biden administration announced this week that it plans to send four million doses to its USMCA partners, with 2.5m expected to be sent to Mexico. Coincidentally, this week there was an official request from the Biden government to Mexico to step up its efforts to contain illegal migration into the US. This growing problem was already discussed when Biden and AMLO held their first official call a few weeks ago, but the timing of both announcements this week is, in our view, part of the same agenda, and the bilateral discussions won't stop here with tension expected to emerge on the energy front.

Data releases and forecasts

Week of March 22 – 26

Labor market report					
Wed	% of labor force				
Mar 24					
7:00am		Nov	Dec	Jan	Feb
	Unemp. rate	4.4	3.8	4.7	—
	sa	4.5	4.4	4.5	—
Consumer prices					
Wed					
Mar 24		Jan 2H	Feb 1H	Feb 2H	Mar 1H
7:00am	%2w/2w	0.50	0.23	0.31	<u>0.35</u>
	Core	0.17	0.22	0.18	<u>0.16</u>
	%oya	3.74	3.84	3.68	<u>3.93</u>
	Core	3.84	3.84	3.89	<u>3.90</u>
Retail sales					
Thu					
Mar 25		Oct	Nov	Dec	Jan
7:00am	%oya	-7.1	-5.1	-5.9	<u>-8.5</u>
	%m/m sa	-0.3	3.6	-2.4	<u>-1.6</u>
Economic activity index (IGAE)					
Thu					
Mar 25	%oya, unless noted				
7:00am		Oct	Nov	Dec	Jan
	%oya	-5.3	-4.1	-2.7	<u>-5.5</u>
	%m/m sa	1.3	0.7	0.1	<u>-0.2</u>
Trade balance					
Fri					
Mar 26		Nov	Dec	Jan	Feb
7:00am	Balance (US\$ mn)	3.0	6.3	-1.2	<u>2.9</u>
	Exports (US\$ bn)	38.3	43.2	32.7	<u>36.6</u>
	%oya	2.3	11.5	-2.6	<u>0.1</u>
	Imports (US\$ bn)	35.3	36.9	33.9	<u>33.8</u>
	%oya	-3.9	3.7	-5.9	<u>0.2</u>

Review of past week's data

No data releases.

Source: INEGI and J.P. Morgan forecasts

Brazil

- **BCB surprised, hiking the SELIC rate by 75bp while we and consensus looked for a 50bp increase**
- **The central bank also signaled another 75bp move in the next meeting**
- **While BCB models would suggest a lower terminal SELIC, we keep our year-end forecast at 5.5% given the remaining political and fiscal uncertainties**
- **Economic activity remained solid in January, but COVID-19 numbers are rising sharply and local governments are implementing containment measures**

In the main event of the week, the central bank (BCB) hiked the SELIC rate by 75bp in a unanimous decision, above our call for a 50bp hike, with a hawkish statement. The COPOM stated that it foresees another 75bp hike at the next meeting, unless there is a significant change in the balance of risks. As we don't anticipate a significant change, we raise our call for the next meeting's increase from 50bp to 75bp.

The monetary authority appears to see benefits to frontload the policy rate adjustment mainly because it would reduce the probability of breaching the inflation target ceiling this year—the Board's inflation projection in its baseline scenario for 2021 is now at 5%, just 25bp below the target ceiling—while keeping longer-horizon expectations well anchored. Anchoring inflation expectations was a concern we shared recently in a [research note](#). We agree with the BCB's view; however, given recent communications from the monetary authority, we believed the Committee would prefer a more gradual approach with sequential 50bp hikes due to the remaining uncertainties in the economy, in particular the economic impact of the strong resurgence of COVID-19 cases.

Beyond the next meeting, the tone of the statement seems less hawkish. In fact, in the more dovish part of the statement, the BCB continued to mention that it aims for a partial normalization of monetary policy, which suggests that it still believes the policy rate should remain accommodative at the end of the cycle. Indeed, in its baseline scenario, the board sees inflation next year at the 3.5% target, given the SELIC rate rising to 4.5% this year and to 5.5% in 2022 (Table 1).

Yet we maintain our view that the SELIC rate should reach 5.50% by the end of this year given the remaining political and fiscal uncertainties, on top of stronger inflationary pressures domestically and abroad, and despite the uncertainty on the economic impact of the pandemic in Brazil. Considering the latest communication, after a 75bp hike in May we now look for four installments of 50bp at the June, August, Sep-

tember, and October meetings, leaving the terminal SELIC rate of this cycle at 5.5%, where we expect it to stay up to the end of 2022.

Table 1: COPOM inflation scenario¹

Meeting	2021 (eop)	2022 (eop)
August	3.0	3.4
September	2.9	3.3
October	3.1	3.3
December	3.4	3.4
January	3.6	3.4
March	5.0	3.5
March (JPMe)	4.2-4.3	3.5-3.7

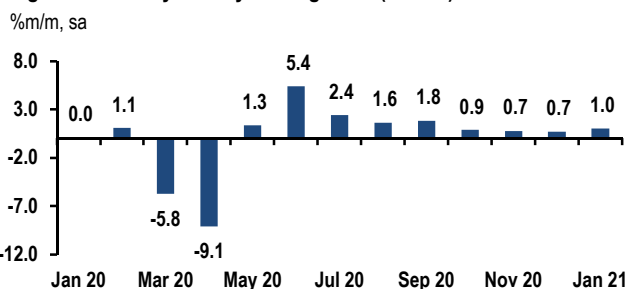
Source: BCB and J.P. Morgan

1. Focus consensus for SELIC and purchasing power parity FX forecast

Economic activity surprised, rising 1% in January

The January IBC-Br, BCB's index of monthly economic activity, grew 1% m/m, sa in January (Figure 1), more than our call for a 0.6% increase and the 0.5% consensus expectation. This was the ninth increase in a row, putting the IBC-Br slightly above its pre-crisis level. Revisions to the historical series put the December print around 0.4% higher than previously released. Activity grew 11.6% 3m/3m, saar in January, down from 14.3% in 4Q and 37.3% in 3Q20.

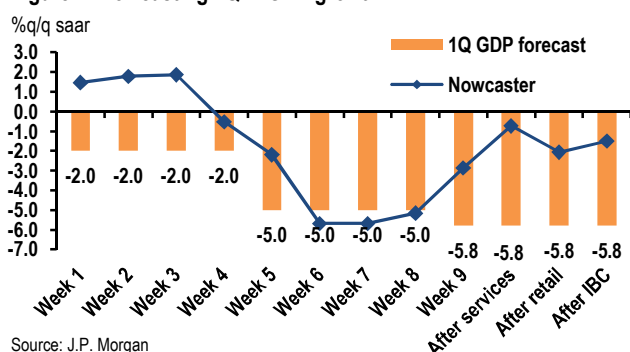
Figure 1: Monthly activity index growth (IBC-Br)



Source: BCB

Last week's January drop in [retail sales](#) pushed our nowcaster of 1Q21 GDP growth down to -2%, but this week's IBC-Br pulled it back to -1.5% (Figure 2). As we have emphasized, the January data in general have run stronger than we expected. However, in our view the weakness of the economy during February and March, when the COVID-19 pandemic worsened significantly and mobility started to decline, still supports our view that the pandemic curtailed activity in the last two months of 1Q.

Figure 2: Nowcasting 1Q21 GDP growth

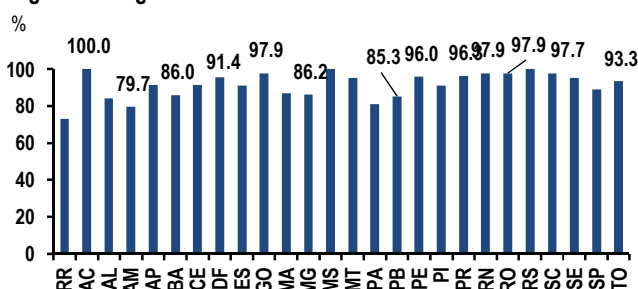


Source: J.P. Morgan

COVID-19 numbers have surged and health system is on the verge of collapse

The [numbers in the second wave of COVID-19](#) have risen sharply and are above those seen in the first wave. The number of cases has stabilized at very high levels and deaths are breaking records almost every day. ICU utilization rates remain very high, close to or at capacity in many states and capitals. Currently, occupancy rates are above 90% in almost two-thirds of the states and is below 75% in only one (Figure 3).

Figure 3: Usage of intensive care beds available* - States



Source: J.P. Morgan, Secretaries of Health

*Some states publish private and public; others only public beds

As a result, many states are announcing further restrictions. On Monday, São Paulo state started a 15-day period with curfews at night with non-essential services and commerce closed. The Minas Gerais state also entered its most restrictive phase with only essential services open and restrictions on the mobility of individuals. States that allow only essential services to remain fully open are: São Paulo, Minas Gerais, Ceará, Paraná, and Rio Grande do Sul. Those states are responsible for more than half of the Brazil's GDP.

Adjustment in fiscal forecasts with the new SELIC rate path

We have adjusted our fiscal forecasts to incorporate the revised path for the SELIC after this week's COPOM decision. We have mainly changed our forecasts for gross debt, increas-

ing the projection for this year by 0.1%-pt of GDP and scrapping 0.3%-pt from 2022 (Table 2).

Table 2: Fiscal accounts forecasts

Percentage of GDP, except where indicated

	New		Old	
	2021	2022	2021	2022
Central government primary balance (BRLbn)	-252	-145	-252	-145
Consolidated government primary balance	-2.8	-1.6	-2.8	-1.6
Nominal balance	-6.7	-5.1	-6.7	-5.2
Gross debt	90.3	93.4	90.2	93.7

Source: J.P. Morgan

Data releases and forecasts

Week of March 22 – 26

Thu		Consumer prices (IPCA-15)			
Mar 25		Dec	Jan	Feb	Mar
8:00am	%m/m	1.06	0.78	0.48	<u>0.93</u>
	%oya	4.23	4.30	4.57	<u>5.52</u>
Fri		Current account balance			
Mar 26		Nov	Dec	Jan	Feb
8:30am	Current account (CA)	0.1	-5.3	-7.3	<u>-2.4</u>
	CA, 12-month sum	-11.8	-12.5	-9.4	<u>-7.1</u>
	CA, 12-month sum, %GDP	-0.8	-0.9	-0.7	<u>-0.5</u>
	Foreign direct investment	1.5	0.7	1.8	<u>5.5</u>

Review of past week's data

Economic activity

	Nov	Dec	Jan	
%m/m, sa	0.7	0.7	<u>0.6</u>	1.0
%oya, nsa	-0.6	1.6	<u>-1.6</u>	-0.5

Wholesale prices (IGP-10)

	Jan	Feb	Mar	
%m/m	1.33	2.97	<u>3.19</u>	2.99
%oya	24.49	28.17	<u>31.42</u>	31.16

COPOM meeting

	Dec	Jan	Mar	
Selic rate	2.00	2.00	<u>2.50</u>	2.75

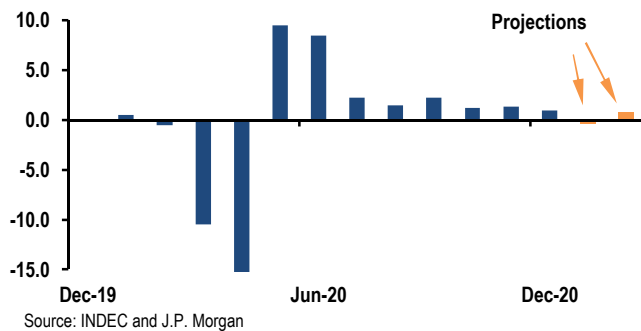
Source: BCB, FGV, IBGE, and J.P. Morgan forecasts.

Argentina

- February nowcaster suggests activity recovered a bit...
- ...but would still print 2.5% below pre-COVID level
- Job losses have started to ease but employment levels still the lowest since 2009

While waiting for the 4Q20 national accounts report, our early-month data nowcaster for February suggests activity recovered a bit from January's estimated decline (Figure 1). If our early model is on the mark, activity would have expanded 0.4% from December 2020, showing the difficulties the economy faces in regaining already-depressed pre-COVID-19 activity levels, which we attribute to the current macroeconomic framework weighing on private sector investment amid very high inflation eroding household purchasing power.

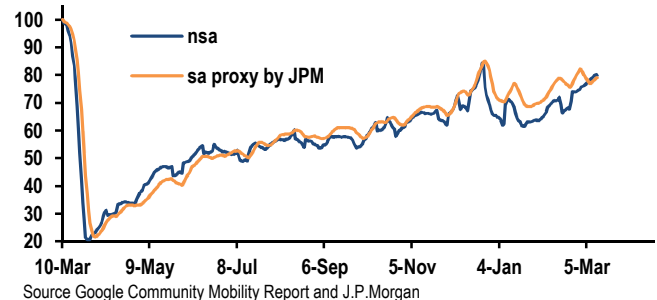
Figure 1: Monthly activity proxy based on early-month data
 %m/m sa



On top of macroeconomic restrictions, the COVID-19 pandemic continues to weigh on economic activity, with the vaccination pace slow. Our mobility proxy based on Google Mobility data and corrected for seasonality showed February's average roughly unchanged from December (Figure 2). That said, mobility has increased in March, by 3.5% sa from February's average. But the risk of more restrictions on mobility remains.

Figure 2: Argentina social distancing cost proxy

%-pt deviation from March 10th (100lvl), as of Jan 22, 2021

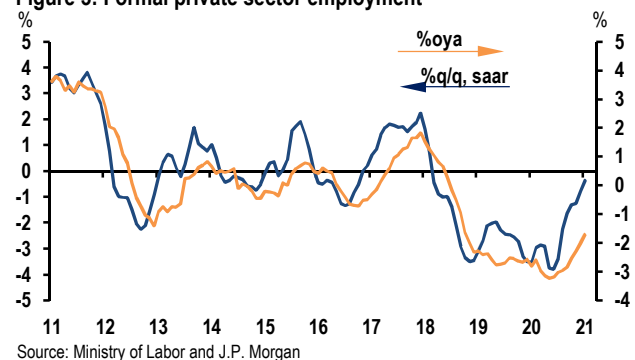


In all, the early-month data suggest activity grew only 0.4% from December 2020, implying that activity remained print 2.5% below the pre-COVID level.

Job losses eased but unemployment rate to prove persistently high

The data set available from the Ministry of Labor through January shows that the pace private formal sector job destruction continues to ease, with employment down by 0.3%3m/3m, saar, a deceleration from the 0.8% contraction reported in 4Q20 and -3.8% in 2Q20 (Figure 3).

Figure 3: Formal private sector employment



The labor market deterioration in the formal sector resulting from the COVID-19 crisis proved relatively limited given the restrictions the government imposed, prohibiting layoffs and double indemnity payments. Yet, job losses have been relentless since 1Q18, when a sudden stop in inflows triggered the first of the three successive shocks that hit the economy. Indeed, formal private sector employment remains at the lowest level since 2009 (Figure 4).

Figure 4: Formal private sector employment

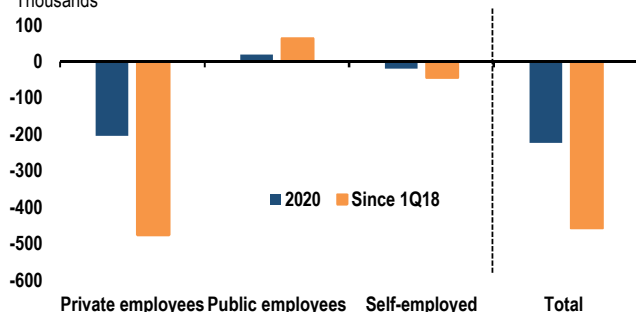
Index, sa (by J.P. Morgan) December 2011=100



Self-employment continues to recover quickly, while high-quality job creation remains the main hurdle. By job category, the broader data set available through December shows that self-employment has been spearheading the recovery, increasing by 2.7%3m/3m, saar in January, slowing from the 14.8% average in 4Q20 amid the expected slowdown of activity. Indeed, the data set shows that 91% of 2020 job destruction was explained by private wage-earners, while public sector and self-employed jobs remained relatively flat (+0.6%oya and -0.9%oya, respectively) despite the COVID-19 shock. The data going back to 1Q18 show a similar picture, with private employees explaining 104% of total job destruction since then (Figure 5).

Figure 5: Job variations by job category

Thousands



Despite the improving trend in the formal private sector, structural hurdles for high-quality job creation persist, weighting on potential growth and the recovery. As we highlighted above, the labor market deterioration in Argentina precedes the COVID-19 crisis. Argentina has historically had high levels of unemployment and low-quality job creation, with the unemployment rate hovering around 9.5% over the past decade. The persistent labor market slack despite the ups and downs in the business cycle has been associated with the numerous frictions in the labor market including high entry and exit costs as well as an excessive tax burden.

While government restrictions capped the unemployment rate increase last year, we believe structural constraints would also prevent a quick labor market recovery after the COVID shock. We now watch for the 4Q unemployment rate data release in the coming week. We forecast the unemployment rate at 12%, a 3%-pt increase from the prior year, and below the levels observed post the 2001 collapse (~20%). Yet, we expect the unemployment rate to prove sticky, at 11.5% in 2021 and 12% in 2022, above pre-COVID levels. Without structural reforms (which we view as unlikely in the next couple of years), we expect unemployment to remain persistently high, and subdued job creation to prevent productivity gains, despite ample spare capacity.

Data releases and forecasts

Week of March 22-26

Budget balance					
Mon		Nov	Dec	Jan	Feb
Mar 22	ARSbn	-58.7	-307.6	24.1	<u>-43</u>
GDP					
Tue		1Q20	2Q20	3Q20	4Q20
Mar 23	%oya	-5.2	-19.0	-10.2	<u>-4.4</u>
Unemployment rate					
Thu		1Q20	2Q20	3Q20	4Q20
Mar 25	%	10.4	13.1	11.7	<u>12.0</u>
Trade balance					
Fri		Nov	Dec	Jan	Feb
Mar 26	US\$bn	0.4	-0.4	1.1	<u>0.8</u>

Review of past week's data

No data released.

Source: INDEC and J.P. Morgan forecasts

Peru

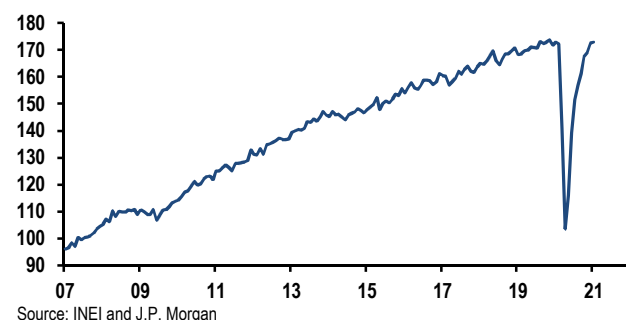
- Activity momentum decelerated strongly in January
- Lima employment barely recovered in February...
- ...while unemployment rate moved higher
- A new private pension fund withdrawal in the offing

Activity grew 0.2%*m/m*, *sa* in January, decelerating sharply from the prior two months' recovery pace. The January print came on the heels of a 2.5% gain in December and 2.3% average monthly gain in 4Q20. The remobilization of different sectors following the stringent lockdown in 2Q has allowed activity to recover by 100% from April's lows when controlling for seasonality, though running -0.98%*o/a* (Figure 1).

The sector breakdown showed manufacturing and construction spearheading annual economic growth, while the disappointment was in mining, where production slumped 8.5%*o/a*, subtracting 1.2%-pts from headline growth. But we associate this contraction with one-offs, and thus expect normalization in February. Finally, COVID-19-sensitive sectors contracted with transportation activity down by 18.8%*o/a* and restaurants and hotels output by 26.6%*o/a*.

Figure 1: Peru real economic activity

Level, *sa*



We expect real GDP to grow 9.9%*y/y* in 2021. We recently revised lower 1Q21 and 2021 real GDP, given the second COVID-19 wave and slow vaccination pace, a slowdown in public sector capex, and political uncertainty going into the elections in April and likely run-off in June. It is in the second half of the year that we expect activity to regain momentum, and also when the terms of trade gains stemming from strong global commodity demand should reverberate more noticeably in domestic demand. Thus, we believe most of the impulse would be positive in 2022, assuming that the incoming administration maintains the broad policy contours that currently define macroeconomic stability.

Renewed labor market headwinds

Employment in Lima barely recovered in February, while the unemployment rate moved higher. Although activity grew in January, the labor market report suggests a further deceleration in February that weighed on the labor market. Employers cut 203,000 jobs in the three months through February, the first employment decline since June. More stringent social-mobility restrictions associated with the second COVID-19 wave appears to be the main factor explaining the halt in the employment recovery. Yet, when controlling for seasonality (JPM's own adjustment), employment edged up 0.1%, *sa* (3mma). But that pace is still substantially below the prior three-month pace at 2.6%.

Moreover, the unemployment rate leaped higher to 14.5%, from 13.0% in January and 7.1% a year ago. But, as in prior months, we stress the information content of the unemployment rate has diminished notably, as labor market participation has dropped significantly. If we assume unchanged participation from before COVID-19 (controlling for seasonality), the shadow unemployment rate printed at 20.7%, relatively stable from 20.8% in January, and far below the 55% observed in June 2020 (Figure 2). Finally, average labor income fell by 14.1%*o/a* in February, which compares with a 12.0% drop in January (Figure 3).

Figure 2: Labor force and employment

Thous, Lima, *sa* by J.P. Morgan

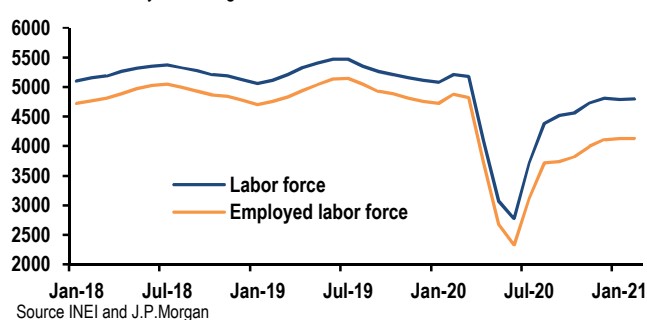
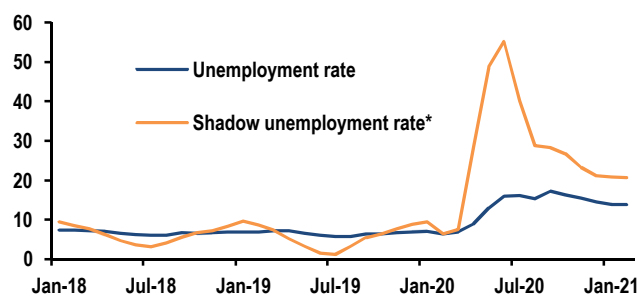


Figure 3: Unemployment

% , *sa* by JPM



In sum, the labor market remains weak despite the recovery of activity. Note that, while real activity returned to pre-COVID-19 levels in December-January employment in Lima remains 12.5% below the pre-pandemic level, which is equivalent to 800,000 jobs. Going into the April general elections, this backdrop looks supportive for either anti-establishment campaigns or populist-flavored agendas, as evidenced below (see [note](#) and [note](#)).

A new private pension fund withdrawal in the offing

This week the Economic Commission of Congress approved a new bill allowing withdrawals from private pension fund savings of up to 4 UIT (equivalent to PEN17,600). The bill also relaxes some conditions required to withdraw. The AFP initial estimates put the potential outflow between PEN39bn and PEN45bn, equivalent to 23%-28% of the system AUM in February. Also, about 4 million people would be left with no savings in their pension accounts.

The Congress still has to vote on the bill, but approval is likely, in our view. Moreover, there are other bills that could add to the potential outflow, like the one approved a few days ago in the Labor Commission allowing for a one-off decrease in the retirement age to allow for additional withdrawals, potentially reaching a total of PEN70bn according to AFP estimates (equivalent to 43% of AUM in February).

Chile

Data releases and forecasts

Week of March 22-26

No data releases.

Review of past week's data

GDP

	2Q20	3Q20	4Q20	
%q/q, saar	-43.9	22.6	28.3	30.1
%oya	-14.5	-9.1	-0.4	0.0

Current account balance

	2Q20	3Q20	4Q20	
US\$bn	2.5	0.6		0.5

Source: INE, BCCh, and J.P. Morgan estimates

Colombia

Data releases and forecasts

Week of March 22 - 26

BanRep policy rate					
Fri		Dec	Jan	Feb	Mar
Mar 26	%	1.75	1.75	1.75	<u>1.75</u>

Review of past week's data

Industrial production

	Nov	Dec	Jan	
%oya	-0.2	1.5	<u>-4.7</u>	-1.6

Retail sales

	Nov	Dec	Jan	
%oya	4.1	-2.8	<u>-7.6</u>	-6.4

Trade balance

	Nov	Dec	Jan	
\$bn	-1.4	-0.9	<u>-0.9</u>	-1.0

Imports

	Nov	Dec	Jan	
\$bn	4.2	4.1	<u>3.7</u>	3.8

Economic activity ISE

	Nov	Dec	Jan	
%oya	-3.8	-2.5	<u>-4.9</u>	-4.6

Source: DANE, BanRep and J.P. Morgan estimates

Peru

Data releases and forecasts

Week of March 22-26

No data releases.

Review of past week's data

Economic activity

	Nov	Dec	Jan	
%oya	-2.5	0.5	<u>-2.9</u>	-1.0

Unemployment rate

	Nov	Dec	Jan	
%	10.9	10.5	<u>10.6</u>	14.5

Source: INEI and J.P. Morgan estimates

United Kingdom

- **BoE delivered a subtle hawkish shift in March**
- **Paving the way for a set of forecast upgrades in May**
- **That will see the Bank acknowledge that the next move in rates is up, but not for a while yet**

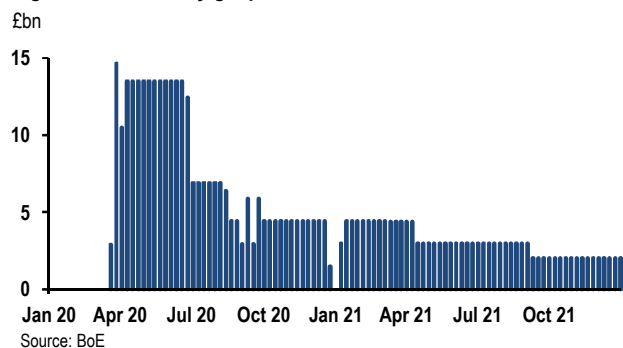
News this week indicated that the vaccine rollout is set to take a temporary hit in April due to disruptions to imported supply. Some upside risk around the UK's target to vaccinate all adults by the end of July had seemed likely based on the pace of jabs. News of a setback means the government still looks likely to meet its cautious July target, but takes away the risk of a faster attainment of that goal. This still leaves the UK's roadmap for lifting restrictions, which was gradual to begin with, looking realistic and hence we do not see any new growth implications from this week's news.

MPC on hold, but more positive

The BoE played to script at its March meeting, making no new policy announcements and stating that it was satisfied with the current monetary policy setting. As we have argued recently, however, the BoE is setting the scene for a round of forecast changes in May that would see it making a hawkish transition. The BoE played down any concern about the recent rise in global rates, describing this mostly as reflecting an improved growth outlook following news on US fiscal stimulus and vaccination programs. Domestic financial conditions were described as broadly stable. This was viewed as a positive for the UK, and will combine with a smaller-than-expected drop in 1Q GDP, fiscal stimulus from the recent Budget, and a somewhat faster planned lifting of restrictions compared to the MPC's February assumptions. The MPC acknowledged that a faster return of inflation to the target was likely from this spring, and that a better outlook for the labor market this year implied a lower-than-expected peak in the unemployment rate.

It thus looks likely the BoE is heading for a suite of forecast upgrades at the May meeting that will see it at least implicitly acknowledge that the next move in rates is up. We think the BoE will not push back much on market pricing for a first hike late next year. However, it is also probably too early to expect it to send a stronger message than this. The MPC still sees a lot of slack in the economy for now, with the unemployment rate still expected to head higher during 2021 and not peak until 4Q. It will also be mindful of fiscal policy turning more restrictive from 2023.

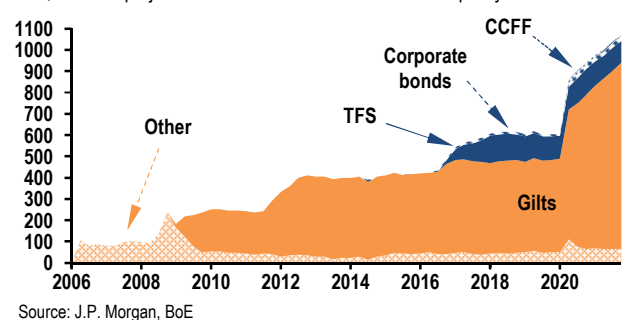
Figure 1: BoE weekly gilt purchases



While the minutes indicate positive developments and a more balanced set of risks compared to February, the MPC indicated it would continue with its previously announced £150bn in asset purchases, driven in large part by a desire to minimize downside risks from any potential unwanted tightening in financial conditions (i.e., the still-large fiscal deficit for this year). In meeting its £895bn target for asset purchases by the end of this year, the BoE will naturally have to taper the weekly pace of its purchases (see Figures 1 and 2, which includes our forecasts). Aside from a natural evolution in the MPC's commentary from positive macroeconomic developments of late, there was little in the minutes or the committee's forward guidance that came as a surprise.

Figure 2: Assets on the BoE balance sheet

£bn, includes projection from 1Q21 based on announced policy



Data releases and forecasts

Week of March 22 – 26

Tue	Labor market statistics				
Mar 23	Average weekly earnings (3mma %oya sa)				
9:30am		Oct	Nov	Dec	Jan
	Headline	2.8	3.7	4.7	
	Ex bonuses	2.8	3.6	4.1	
	Private sector ex bonuses	2.5	3.3	4.0	
	Labor force survey (all percentage rates, sa)				
	Three months to:	Oct	Nov	Dec	Jan
	Activity rate	63.8	63.8	63.6	
	Employment rate	60.6	60.6	60.3	
	Unemployment rate	4.9	5.0	5.1	<u>5.2</u>
	- single month	5.2	5.0	5.1	<u>5.5</u>
	Change over three months to:	Oct	Nov	Dec	Jan
	Employment (000s)	-143	-88	-114	

Tue	CBI industrial trends				
Mar 23	% balance				
11:00am		Dec	Jan	Feb	Mar
	Total order books	-25	-38	-24	
	Output expectations	-6	-24	-2	
	Output prices	0	4	3	

Wed	Retail prices				
Mar 24	%oya				
9:30am		Nov	Dec	Jan	Feb
	CPI	0.3	0.6	0.7	<u>0.8</u>
	Core CPI ¹	1.1	1.4	1.4	<u>1.4</u>
	RPI (1987=100)	293.5	295.4	294.6	<u>296.5</u>
	RPI	0.9	1.2	1.4	<u>1.5</u>

¹ CPI ex food, energy, alcohol, and tobacco.

While we look for core inflation to remain steady in February, the release should demonstrate a clear impact from the rise in energy prices this year with headline moving up. The BoE penciled in a 0.7% rise in its last forecast update, although oil prices have risen since then. This release will also see the second set of weighting updates for the CPI alongside new weights for the RPI. The impact of weighting changes was modest in the prior release and we do not expect this to change in the February data.

Wed	House price index				
Mar 24	%oya, nsa				
9:30am		Oct	Nov	Dec	Jan
	All dwellings	5.8	7.1	8.5	

Wed	PMI survey flash, manufacturing				
Mar 24	% balance, sa				
9:30am		Dec	Jan	Feb	Mar
	Overall index	57.5	54.1	55.1	
	Output	55.9	50.7	50.5	<u>51.0</u>

Wed	PMI survey flash, services & composite				
Mar 24	% balance, sa				
9:30am		Dec	Jan	Feb	Mar
	Services business activity	49.4	39.5	49.5	<u>52.2</u>
	Composite				
	Output	50.4	41.2	49.6	<u>52.0</u>

Thu	CBI survey of distributive trades				
Mar 25	% balance				
11:00am		Dec	Jan	Feb	Mar
	Volume of retailer sales	-3	-50	-45	

Fri	Retail sales				
Mar 26	Volumes, sa				
9:30am		Nov	Dec	Jan	Feb
	Including auto fuel (%m/m)	-4.0	0.3	-8.2	
	Ex auto fuel				
	(%m/m)	-2.9	0.5	-8.7	
	(%oya)	5.5	6.7	-3.8	
	(%3m/3m saar)	10.8	3.7	-15.0	

Review of past week's data

Rightmove house price index				
Nsa		Jan	Feb	Mar
	%m/m	-0.9	0.5	0.8

MPC rate announcement and asset purchase target

No change in policy. See main text.

GFK consumer confidence				
Nsa		Jan	Feb	Mar
	% balance	-28	-23	-16

Public sector finance					
£ bn, nsa					
	Dec		Jan		Feb
PSNCR	-40.6	-40.5	19.6		-14.2
PSNB	26.1	24.7	8.0	2.4	18.4
- ex. pub. banks	26.8	25.4	8.8	3.1	19.1
Current budget (ex. pub. banks)	-24.2	-19.7	-4.3	3.4	-12.0
Net debt to GDP (%)	144.3	113.2	112.9	112.0	112.4
- ex. pub. banks	99.2	98.2	97.9	97.1	97.5

Source: Rightmove, CBI, BBA, BCC, GFK, BRC Markit, SMMT, RICS, Land Registry, ONS, BoE, and J.P. Morgan forecasts

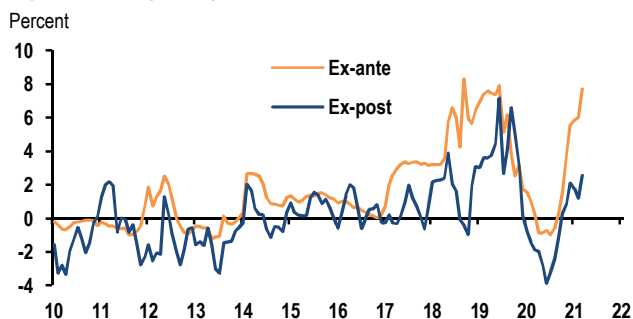
Emerging Europe

- **Turkey: The CBRT hiked rates by 200bp and kept the tightening bias**
- **Russia: Up and at 'em! The CBR hiked 25bp and signaled more to come**
- **Israel: CPI inflation broke out of negative territory**

Turkey: CBRT acted boldly and proactively

Concerned by the recent recovery in credit growth, ongoing strength in global commodity prices, and especially by increased risks to policy credibility, the CBRT delivered a bigger-than-expected hike while maintaining its tightening bias. The 200bp hike was above the 100bp market consensus and J.P. Morgan forecast and brought the cumulative tightening since Governor Agbal took office to 875bp. With realized annual inflation at 15.6%ooya and 12-months-ahead expected inflation at 10.5%, the CBRT is currently offering a solid ex-post real interest rate and nearly a historically high ex-ante real interest rate (Figure 1). We think this week's bold move will serve its purpose by restraining credit growth and restoring policy credibility. Investors must be relieved, in our view, to see that the CBRT hiked rates when needed. Although this has provided a buffer against tighter global financial conditions and reinforce disinflation, the extent and the sustainability of disinflation will depend on how much help the CBRT gets from other policy-making bodies.

Figure 1: Turkey policy rate in real terms



The cumulative impact of the rate hikes in restraining domestic demand, supporting the lira, and likely shifting down inflation expectations will support disinflation. However, ongoing strength in global commodity prices and a weak base mean that inflation will remain sticky in the short run. We see the cyclical peak in inflation at 16.3% in April. Even after that, inflation likely will decline gradually. We see inflation around or above 15% until September. We expect a sharp drop to 11.2% in the last two months of the year. Therefore, although we think we have reached the peak for the policy rate and the next move will be a cut, we see the first 100bp cut only in

September. An improvement in global risk appetite and/or a faster-than-expected fall in inflation could pull forward the easing cycle. Conversely, further tightening of global financial conditions, a sustained increase in commodity prices, or political/policy-related risks at home could delay the easing cycle further.

Russia: Keeping up with the Joneses

The CBR surprised us and the consensus with a 25bp hike to 4.5% this week. Although the CBR's rhetoric turned more hawkish ahead of the meeting, it did not imply such an early move. The data flow in the past couple of weeks held few surprises, so we suspect it was substantial market repricing and moves by Brazil, Turkey, and neighboring central banks (Ukraine, Georgia) that emboldened the board. Indeed, Governor Nabiullina hinted that they took comfort in substantial tightening that had been priced by the market ahead of the meeting.

To be sure, the board's economic assessment also continued to shift in a more hawkish direction. The main change compared to the previous meeting was arguably in admitting that "temporary" factors like FX passthrough or food inflation played a progressively lesser role in recent elevated inflation readings, while more persistent components related to higher inflation expectations and of a monetary nature gained in importance. The inflation forecast for end-2021 (currently at 3.7%-4.2%) will be increased at the next revision round in April and inflation will return to the 4% target only in 1H22.

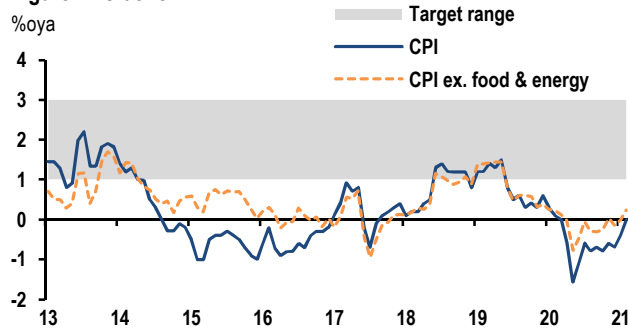
Views on growth also continued to shift upward, as the recovery is running ahead of CBR expectations and the consumer appears to be on a stronger footing. Output in some sectors now exceeds pre-COVID-19 levels and in some cases can't keep up with the demand recovery. Prospects for a stronger fiscal impulse in DM imply positive spillovers to growth in Russia, including via commodities, and a more inflationary environment in general.

The CBR's main message on the policy path appears similar to the BCB's and CBRT's—a more frontloaded tightening should contain inflation risks later in the year and potentially implies less tightening overall. Given the CBR's preference for a faster normalization, we brought forward all the remaining hikes that we assumed for the next 12 months into the next three meetings, and expect the key rate to reach 5.25% by July. This should bring the real rate back to slightly positive territory in 2H21, which should give the CBR some comfort to return to wait-and-see mode. We assume one more 25bp hike in 1H22, bringing key rate to 5.5%, which we think should be close to neutral for Russia.

Israel: CPI inflation breaks out of negative territory

Israel's headline CPI inflation printed at 0.0%oya in February, up from -0.4% in January and hence firmer than our -0.2%oya projection. In sequential terms prices increased 0.3%/m with energy, food, and core items all contributing. Clothing prices—usually seasonally weak in February—surprised to the upside and so core prices ended up firmer than expected, rising over a year ago (Figure 2). Both the January and February inflation prints have surprised to the upside but with CPI inflation still below the Bank of Israel's target range we do not see any implications for interest rate policy and continue to see the main interest rate unchanged at 0.1% over our forecast horizon.

Figure 2: Israel CPI



Source: BOI, J.P. Morgan

Following the February CPI print we revised up 2021 CPI inflation to 0.8% (from 0.6% previously) but note that risks to our forecast are skewed to the upside given that inflation surprises are starting to influence inflation expectations. That said, inflation is still extremely subdued and even with the projected acceleration through the year, we see it staying near to the lower bound of the Bank of Israel's 1%-3% target range. Notably, Governor Yaron told the press earlier this month that even as inflation picks up, the interest rate will remain "lower for longer," citing the need to tackle high unemployment. We too think that the Bank of Israel can comfortably maintain an accommodative stance and we see no pressure over 2021/22 to adjust interest rates in either direction. We think the Bank most likely will continue with its balance sheet measures, rolling out the announced QE package and FX intervention policy as stated and expanding them if needed.

Data releases and forecasts

Week of March 22 – 26

Czech Republic:

Wed **CNB rate decision**
Mar 24 %

On hold: 0.25%

We expect that a combination of slowing core inflation, weak activity data in early 2021, a severe healthcare situation, and delays in the vaccination rollout will somewhat temper the CNB's concerns with inflation/overheating. The staff forecast implies an aggressive tightening cycle starting from 2Q, but in our view it will be very difficult to reach a board majority to move that early. More likely, the board will aim to have some reassurance that the country is out of the woods with respect to the COVID-19 crisis. We assume in our forecasts that the vaccination program achieves critical mass in 3Q21, which then would allow the CNB to start a hiking cycle from 4Q21.

Source: CNB, National Statistics, Eurostat, J.P. Morgan forecasts

Hungary:

Tue	Balance of payments				
Mar 23	EUR mn				
8:30am		1Q20	2Q20	3Q20	4Q20
	Current account balance	312	-645	807	—
	Trade balance	-192	-788	-26	—
	Exports %oya	-0.4	-22.8	-1.3	—
	Imports %oya	-0.6	-20.6	-6.2	—
	Service balance	1435	805	1455	—
	Income balance	-540	-426	-579	—
	Current transfers	-391	-236	-43	—
	Fin + cap balance	747	-447	1328	—
	FDI, net	-552	-431	-198	—
	Portfolio investment	2840	-2492	-149	—
	Other investment	880	-2834	-1259	—

Tue **NBH rate decision**
Mar 23 %

On hold: 0.60%

Hungary has a relatively high policy rate in a regional context and the current account has returned to surplus, so the forint is somewhat better anchored than last year, and this should help the NBH sustain a cautious stance despite an elevated CPI outlook in a regional context. As core CPI re-emerges in 2022, we see the pressure rising for the NBH to tighten policy, especially if liquidity injections are not scaled back significantly.

Thu **NBH 1-week deposit facility rate decision**
Mar 25 %

On hold: 0.75%

Source: NBH, National Statistics, Eurostat, J.P. Morgan forecasts

Turkey:

Fri	Capacity utilization				
Mar 26	%				
10:00am		Dec	Jan	Feb	Mar
	Total manufacturing	75.6	75.4	74.9	<u>74.3</u>
	Durables	73.6	73.8	76.8	<u>75.0</u>
	Nondurable	71.0	70.6	70.6	<u>70.2</u>

Source: Turkstat, CBRT, Ministry of Treasury and Finance, J.P. Morgan forecasts

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March 19, 2021

J.P.Morgan**Review of past week's data****Czech Republic:****Retail trade**

%oya, unless otherwise stated

	Nov	Dec	Jan	
Retail sales ex auto	-6.3	3.7	—	-7.9
%m/m, sa	-5.8	8.3	—	-6.6

Balance of payments

CZK bn

	Nov	Dec	Jan	
Current account	48.3 19.7	-3.9 -4.4	—	28.6
YTD	484.4 207.9	0.0 203.5	—	232.2
YTD-a year ago	-4.2 27.4	-47.0 19.2	—	25.9
Trade balance	42.4 41.8	26.8 26.2	—	32.9
Service balance	2.0 3.1	2.4 3.8	—	2.3
Primary income	-44.0 -14.3	-35.6 -37.6	—	1.4
Secondary income	-44.7 -10.9	2.5 3.3	—	-8.0
Financial account	-6.9 -9.8	8.0 17.3	—	19.1
FDI, net	-7.2 -9.5	-33.1 -13.2	—	4.6
Portfolio investments	78.0	-322.0 -306.1	—	145.0
Other investments	-67.4 -67.1	360.9 334.2	—	-142.5

Source: CNB, National Statistics, Eurostat, J.P. Morgan forecasts

Hungary:**NBH 1-week deposit facility rate decision**

%

NBH held the 1-week depo rate at 0.75%, as expected.

Source: NBH, National Statistics, Eurostat, J.P. Morgan forecasts

Israel:**Consumer prices**

%oya

	Dec	Jan	Feb	
%oya	-0.7	-0.4	-0.2	0.0
%m/m, nsa	-0.1	-0.1	0.1	0.3

See main text for details.

Source: BOI, National Statistics, J.P. Morgan forecasts

Poland:**Consumer prices**

%oya, unless otherwise stated

	Dec	Jan	Feb	
%oya	2.4	2.7 2.6	2.3	2.4
%m/m, nsa	0.1	4.2 1.3	—	0.5
Food	0.8	4.3 0.8	—	0.6
Fuel	-8.4	-7.4 -7.4	—	-3.7

Core inflation

%oya

	Dec	Jan	Feb	
CPI-ex food and energy	3.7	3.9	3.6	3.7
CPI-ex admin. prices	1.4	1.5	—	1.7
CPI-15% trimmed mean	2.7	2.6	—	2.3
Avg of 4 NBP measures	2.7	2.7	—	2.6

Balance of payments

EUR mn

	Nov	Dec	Jan	
CA balance	2116	430	—	3258
YTD (bn)	18	18	—	21.6
YTD-a year ago (bn)	2.5	2.6	—	2.8
Trade balance	1872	333	—	845
Exports %oya	10.1	14.8	—	-2.8
Imports %oya	5.3	13.6	—	-5.3
Service balance	2689	1811	—	2367
Primary income	-1836	-1438	—	574
Secondary income	-609	-276	—	-528
Fin + cap balance	2127	5301	—	4800
FDI, net	673	1955	—	-2199

Gross wages and employment

%oya

	Dec	Jan	Feb	
Gross wages, nominal	6.6	4.8	—	4.5
Real (CPI adj.)	4.2	2.1 2.0	—	1.9
Employment, 000s, nsa	6329	6314	—	6334
Employment, %oya	-1.0	-2.0	—	-1.7

Industrial output

%oya

	Dec	Jan	Feb	
Industry	11.1	0.9	—	2.7
%oya, swda by GUS	6.1	5.7	—	4.5
%m/m, swda by GUS	0.6	1.7	—	0.4
Manufacturing	12.7	0.8	—	2.6
Construction	3.3	-10.0	—	-16.8

Producer prices

%oya

	Dec	Jan	Feb	
Producer prices	0.1	0.7	—	2.0
%m/m, nsa	0.3	0.7	—	0.8

Retail sales

%oya, unless otherwise stated

	Dec	Jan	Feb	
Retail sales (nominal)	-0.8	-6.0	—	-2.7
Real, CPI-adjusted	-0.8	-6.0	—	-3.1
%m/m, sa	2.9 1.4	-5.2 -1.4	—	5.3

Source: NBP, National Statistics, Eurostat, Markit, J.P. Morgan forecasts

Romania:**NBR rate decision**

%

NBR held the key rate at 1.25%, as expected.

Current account balance

EUR bn

	Nov	Dec	Jan	
Current account	-1.0	-1.3	—	-0.2
Ytd	-9.7	-11.0	—	-0.2
Ytd a year ago	-9.7	-10.5	—	-0.4

Source: National Statistics, Eurostat, J.P. Morgan forecasts

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Economic Research**Emerging Europe**

March 19, 2021

J.P.Morgan**Russia:****Industrial output**

%oya

	Dec	Jan	Feb	
Industrial output	2.1	-2.5	-1.9 -2.7	-3.7
Mining	-7.5	-7.1	-7.4	-8.9
Manufacturing	7.9	-1.0	-0.2	-2.4
Electricity, gas, steam	5.6	7.2	8.7	7.3

Industrial producer prices

%oya unless otherwise stated

	Dec	Jan	Feb	
%m/m, nsa	1.5	3.5	1.4	3.5
%oya	3.6	6.7	8.9	10.7

CBR rate decision

%

Hiked to 4.5% - see main essay

Real economy indicators

Real terms, %oya

	Dec	Jan	Feb	
Construction	0.9	0.1	-0.5	0.0
Agriculture	0.5	0.7	1.0	0.6
Transportation	-1.3	-2.0	-2.1 -3.5	-0.8
Retail sales	-3.6	-0.1	-2.0	-1.3
Unemployment, %nsa	5.9	5.8	5.7	
Industrial output	2.1	-2.5	-1.9 -2.7	-3.7

Source: Rosstat, MinFin, AEB Russia, Markit, J.P. Morgan forecasts

Turkey:**CBRT rate decision**

%

	Jan	Feb	Mar	
CBRT 1-week repo rate	17.00	17.00	18.00	19.00
CBRT ON borrowing rate	15.50	15.50	16.50	17.50
CBRT ON lending rate	18.50	18.50	19.50	20.50
CBRT Late liquidity	21.50	21.50	22.50	23.50

See main text.

Source: Turkstat, CBRT, Ministry of Treasury and Finance, J.P. Morgan forecasts

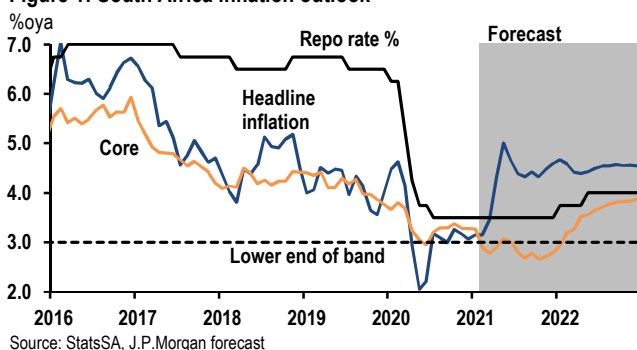
South Africa & SSA

- **South Africa: SARB to prepare ground for policy normalization, but keep the policy rate unchanged at 3.5%**
- **We expect moderate forecast revisions, with the QPM likely to signal a 4.25% repo rate by year-end**
- **Inflation probably remained steady at 3.2% in February, helped by lower health insurance inflation**
- **SSA MPC preview: CBN likely to stay on hold next week, but signal a rate hike, Ghana to cut by 50bp**

SA: SARB to hold rates steady next week, but prepare the ground for tightening

We expect the SARB to keep the policy rate unchanged at 3.5% at the upcoming MPC meeting in a unanimous decision, although the timing and pace of policy normalization probably will be debated. The forecast revisions likely will moderately raise near-term growth and inflation projections while the risk bias around inflation projections also could shift. The 4Q20 GDP report was largely as expected, with full-year growth coming in just a tenth below the SARB's -7.1% projection. However, the 4Q20 GDP report also signals a strong growth pickup in 1H21, with support from inventory rebuilding and scope for the business sector to catch up, in addition to likely spillover from stronger fiscal stimulus in developed markets. We expect the SARB to mark up its 2021 growth projection to 4.3%, from 3.6%, while leaving 2022 projections largely unchanged. While an upgrade to trend growth mitigates the impact, the output gap probably will be revised narrower to -3.5% this year, from -3.9% previously.

Figure 1: South Africa inflation outlook



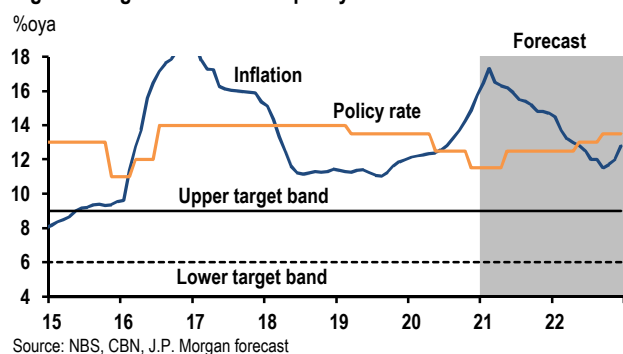
Near-term inflation risks are skewed to the upside and we now expect the upcoming February CPI report to show steady headline inflation at 3.2% followed by a rise to 5% by May (Figure 1). Given the details of the GDP report and emerging food price pressures, we have incorporated some of the upside risk into our baseline projections and now expect inflation to average 4.2% this year and 4.5% next year. Similarly, the

SARB's inflation projections could be marked up by 0.2%-0.3%-pts in 2021 (from 4% currently) and 0.1%-pt in 2021 (from 4.5%) as the impact of higher oil and agricultural prices is only partly offset by a stronger rand input assumption (USD/ZAR 15.10, from 15.70 in January). The combined impact of output gap and inflation revisions could be a 15bp move up in the year-end QPM-repo rate to 4.25% (from 4.1%). As the MPC increasingly will debate the pace and timing of policy normalization, the risk assessment on inflation and the voting pattern will serve as guides, in addition to the more formal QPM repo rate projections. In the event of either a vote in favor of a hike or an upside inflation risk assessment, the MPC could be preparing markets for a hike as early as July, but this is not our base case.

Separately, high-frequency data revealed the hit to consumption inflicted by earlier lockdown restrictions. Retail sales contracted by 1.6%/m/m, sa in January, after gaining 0.7% in 4Q. The alcohol sale ban in the month explained a large portion of the drop in retail sales, with food and beverages having the biggest negative impact. Categories of hardware recorded gains, suggesting that consumers might be in a stronger position to spend. With the alcohol ban lifted in February, we expect retail sales to rebound, underpinning a rapid normalization of household consumption expenditures, which stood just 2.4% below the pre-crisis level in 4Q20.

SSA MPC preview: Nigeria to stay put, Ghana likely to cut

Figure 2: Nigeria inflation and policy rate



In Nigeria, inflation unexpectedly climbed to 17.3%oya in February, from 16.5% in January, with a persistent rise in food inflation continuing to drive the climb. We think that the inflation cycle is nearing its peak, as we expect headline inflation to begin moderating toward the end of 1H21. In our view, despite pressures from fuel and electricity price hikes, the bumper harvest of late 2020 should ease pressure on domestic food prices, helping to slow inflation to 15.8% by December (14.7% previously). Meanwhile, core inflation, which excludes farm produce, rose to 12.38%oya, from 11.85% in

January, mainly due to higher transport, health, and miscellaneous services costs. All told, we still expect the Central Bank of Nigeria to stay put at next week's MPC meeting, but risks of a hike have risen (Figure 2).

In Ghana, based on the Central Bank governor's recent comments, our call is for a 50bp cut. But, we think the risk is that the higher rate environment globally, and in EM especially, limits the Bank's ability to deliver cuts. Also, slightly higher headline inflation recently could convince the MPC to postpone the easing cycle. Inflation rose to 10.3%oya in February, due to higher transport inflation, which accelerated from 6.7% to 8.4%, reflecting the rebound in global oil prices. Yet, headline inflation has been fairly stable at the start of the year, dropping by 0.5%-pt to 9.9% in January, benefiting from a relatively stable currency and moderating food prices. We expect inflation to ease further as a base effect pulls inflation lower, particularly in 2Q21 as inflation spiked in the corresponding quarter of last year.

South Africa

Data releases and forecasts

Week of March 22 – 26

Wed Mar 24 10:00am	Consumer prices %oya, except as noted	Nov	Dec	Jan	Feb
	CPI	3.2	3.1	3.2	<u>3.2</u>
	%m/m, sa	0.0	0.2	0.3	<u>1.0</u>
	Core	3.3	3.3	3.3	<u>2.9</u>

Thu Mar 25	SARB policy rate announcement %
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We expect the SARB to keep the policy rate at 3.5% (see main text).

Review of past week's data

Retail sales

%oya	Nov	Dec	Jan	
Real	-4.3	-1.2	—	-3.5
Nominal	-1.6	1.6	—	-1.5

Source: StatsSA, National Treasury, J.P. Morgan forecasts

SSA

Data releases and forecasts

Week of March 22 – 26

Ghana Mar 22	Policy rate announcement %
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We expect the central bank to cut its policy rate by 50bp (see main text).

Nigeria Mar 25	Policy rate announcement %
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We expect the CBN to keep its policy rate at 11.5% (see main text).

Zambia Mar 25	Consumer prices %oya	Dec	Jan	Feb	Mar
		19.2	21.5	22.2	—

Review of past week's data

Nigeria: CPI %oya	Dec	Jan	Feb	
	15.8	16.5	16.2	17.3

Mozambique: Policy rate announcement

The MPC left its benchmark rate unchanged at 13.25% as expected.

Source: Haver, J.P. Morgan forecasts

Australia and New Zealand

- Australia's unemployment rate fell five-tenths to 5.8%
- The end of government wage subsidies and enhanced welfare benefits the next test for the labor market
- RBA minutes added little to the policy discussion
- The NZ economy contracted 1%q/q in the final quarter of 2020

The RBA released the minutes to the March board meeting this past week. The concluding sections repeat the mantra of recent communications, in that while the recovery is continuing, the significant distance to the bank's lofty policy objectives will sustain accommodation for a lengthy period. To hike the cash rate, the board needs inflation "sustainably" in the target band, and a return to a "tight" labor market, with "materially higher" wage inflation. Governor Lowe last week gave a number on the latter, stating 3% wage growth as a necessary condition to sustainably hit the inflation target, and the minutes further relate that parameter to productivity trends.

The economic commentary pre-positions for some coming noise in the inflation data given base effects and relative price shifts from COVID-19. The board will "look through" these, again with the labor market dictating what a truly sustainable rise in inflation looks like. The board is cautious on how the roll-off of government support at the end of the month will play out, and like us are describing this dynamic as likely to slow progress (in their words, deliver a "temporary pause in the pace of improvement") rather than drive backward steps via increased unemployment. Household consumption patterns are evolving as earlier outperformance of goods is "easing back towards earlier trends," with services activity recovering to the extent possible under border closures.

More labor market outperformance

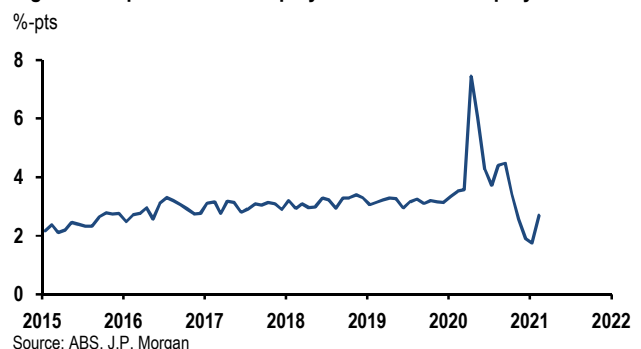
Australia's labor data for February were strong across the board. The unemployment rate fell five-tenths to 5.8% (J.P. Morgan and consensus: 6.3%), with the prior month's print revised one-tenth lower to 6.3%. Employment rose 89K on the month and was entirely concentrated in full-time appointments. Labor supply remains strong with the participation rate sticking at an all-time high (66.1%), while the employment to population ratio popped four-tenths and at 62.3% is close to pre-pandemic levels (Figure 1).

Figure 1: Australia's employment to population ratio



An interesting wrinkle in the January survey was the collapse in hours worked (-5% m/m), which the statistics bureau attributed to a larger-than-normal share of the labor force taking holiday leave. The February print suggested a broad return to work, with monthly hours bouncing sharply and lifting the annual rate into positive territory (+0.2% oya). The only blemish in the February survey was the upshift in the underemployment rate, which rose 0.4%-pt to 8.5%. We suspect part of the move higher in underemployment owes to the gradual unwind of the JobSeeker benefit, which, in our view, has disincentivized the marginal supply of hours for certain pockets of the labor force. The gap in performance between unemployment and underemployment has been large, and further unwind of that is likely over time (Figure 2).

Figure 2: Gap between unemployment and underemployment rates



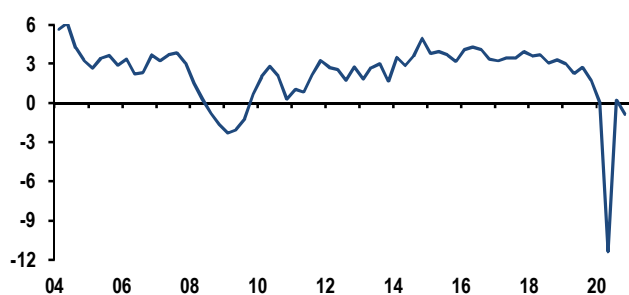
NZ recovery road now a little longer

New Zealand's 4Q GDP report came in a little under our already-well-below-consensus forecast, at -1%q/q (JPM: -0.8%q/q; consensus: +0.2%q/q; RBNZ: 0.0%q/q). The annual rate is now negative at -0.9%oya (Figure 3). [GDP had arguably overshot in the prior results](#), due to a combination of seasonal effects (lost tourism doesn't become evident until 4Q/1Q) and measurement distortions from government support. We expected these to be ironed out somewhat by the combination of a significant contraction in 4Q, and downward revisions. The latter turned out to be not as material as sug-

gested by the statistics bureau's technical notes last week, but in combination with the 4Q result, GDP is still more than 1.5% below where the market thought it would be at this point.

Figure 3: New Zealand GDP growth

%oya



Source: Stats NZ, J.P. Morgan.

The 1%q/q decline in production (the official measure of GDP in NZ) was supplemented by a 1.5%q/q contraction in the expenditure gauge. With downward revisions to prior quarters, annual growth is now -0.9%oya (consensus: +0.5%oya). The expenditure breakdown shows consumption decelerating a lot (+1.0%q/q after +14.2%q/q in 3Q), though still stronger than suggested by contracting retail volumes, as activity rotates to consumer services (+3.8%q/q). Some of the large gap between goods spending (above pre-COVID-19 levels) and imports/inventories highlighted in the research above normalized, with imports vaulting 9.1%q/q. Much of this was in autos.

Exports were down 1.1%q/q and starting to show the effects from lost services activity. Capex underperformed fairly broadly due to pullback in other fixed assets (-3.1%q/q) particularly non-residential building (-4.5%q/q), other construction (-7.6%q/q), and plant and equipment (-3.3%q/q). Residential building was the comparative outperformer (+1.9%q/q). Within consumption, durable goods slipped 1.5%q/q, and non-durables were down 1%q/q, both of which came after bumper double-digit gains in 3Q. Low-value direct imports (effectively, internet purchases from offshore vendors) also stepped back 0.7%q/q. Households' expenditure overseas appeared at face value to have a strong gain (+34%q/q), but in absolute terms the change was very small, reflecting the power of a denominator now near zero.

Australia

Data releases and forecasts

Week of March 22 – 26

Wed	Preliminary trade balance				
Mar 24		Nov	Dec	Jan	Feb
11:30am	A\$bn	7.1	8.1	10.2	-

Review of prior week's data

Labor force survey

	Dec	Jan	Feb
Unemployment rate (%)	6.6	6.3	5.8
Employment (ch. 000s)	45.0	30.0	89.1
Participation rate (%)	66.1	66.1	66.1

New Zealand

Data releases and forecasts

Week of March 22 – 26

Wed	International merchandise trade				
Mar 24		Oct	Dec	Mar	Feb
8:45am	NZ\$ mn	-0.5	0.0	-0.6	-

Review of prior week's data

Current account balance

	Jun	Sep	Dec
NZ\$bn	-1.5	-3.6	-2.7

Real GDP

	Jun	Sep	Dec
%q/q	-11.0	13.9	-1.0

Source: ABS, Stats NZ, J.P. Morgan forecast

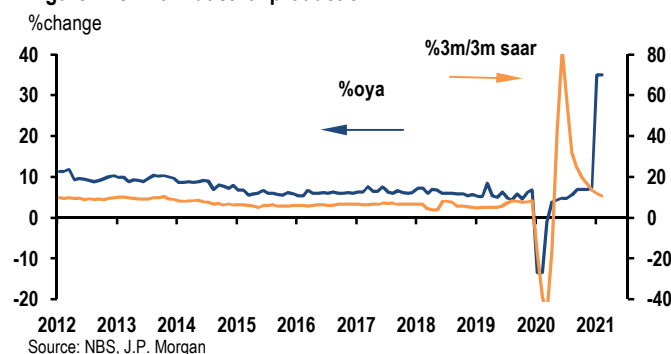
Greater China

- **China: Uneven activity in Jan-Feb, with weakening domestic consumption and investment**
- **Sequential momentum in new home prices accelerated**
- **Hong Kong: Unemployment rate rose further to 7.2% in February**
- **Taiwan: Central bank kept policy rates unchanged amid constructive growth outlook**

Interpreting the January-February activity data is more challenging than usual, as COVID-19 hit the economy most severely in this period last year, followed by a strong rebound. %oya growth is extremely high due to the low base in 2020, and %m/m, sa growth is affected by the unusual data volatility throughout 2020 (Figure 1). A useful approach is to look at growth rates compared to two years ago.

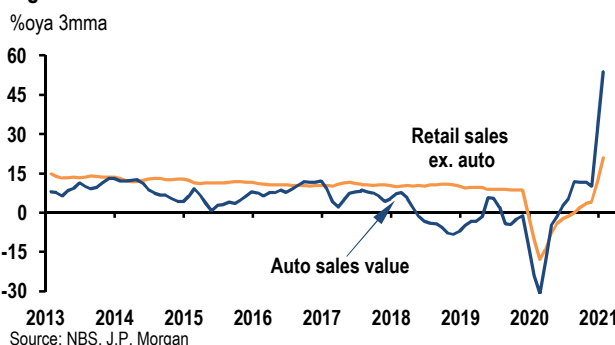
IP maintained its solid growth momentum in Jan-Feb, mainly supported by strong exports benefiting from global demand and smooth factory reopening after the Lunar New Year (LNY) holiday as most migrant workers stayed at their workplaces rather than returning home for the holiday. IP was 16.9% higher than in Jan-Feb 2019, implying 8.1% average annual growth. In sequential terms, IP rose 0.7%/m/m, sa on average in Jan-Feb (vs. 0.8%/m/m, sa average growth in 4Q20). Exports were 32.7% higher than in Jan-Feb 2019 (15.2% average annual growth), compared to a 27.7% increase in December 2020 vs. December 2018.

Figure 1: China industrial production



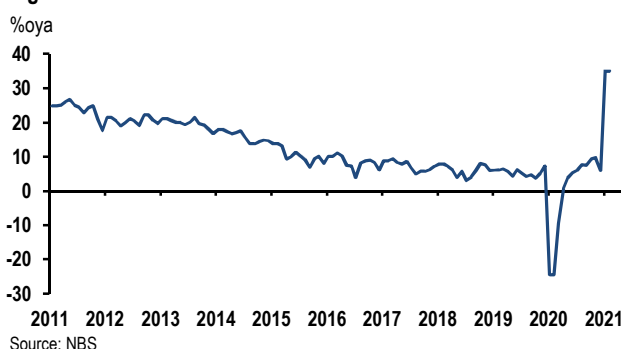
Domestic consumption and services activity slowed sequentially in Jan-Feb due to restrictions on cross-region travel during the LNY period. Retail sales were 6.4% higher than in Jan-Feb 2019 (3.2% average growth). Retail sales contracted by an average of 1.9%/m/m, sa in Jan-Feb after a 0.9%/m/m, sa average increase in 4Q20 (Figure 2). Services production was 14.1% higher than in Jan-Feb 2019 (6.8% average growth). By sector, IT services led with 14.4% growth per annum in Jan-Feb and real estate services rose 11.8% per annum in the past two years.

Figure 2: China retail sales



Domestic FAI activity also slowed notably, due in part to policy normalization, evidenced by a weak start of special local government bond issuance and a decline in the credit impulse, and maybe in part to seasonality. FAI was 3.5% higher than in Jan-Feb 2019 (Figure 3). In the breakdown, real estate investment registered the strongest growth at 7.6% per annum in the past two years, while manufacturing investment rose 1.7% and infrastructure investment fell 1.6% per annum, significantly weaker than in December.

Figure 3: China nominal fixed asset investment

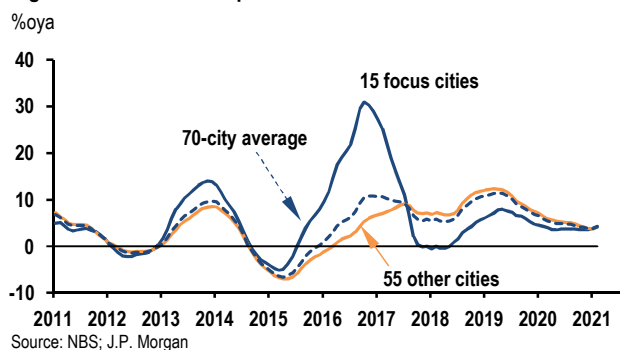


We forecast a slowdown of China's economy from 14.9%/q, saar GDP growth in 4Q20 to 6.0% in the current quarter, and further to 5.0% in 2Q. The risks to our current-quarter forecast are balanced overall, but will tilt to the downside if domestic activity remains weak.

Sequential momentum in new home prices accelerated

Based on NBS 70-city data, new home prices rose 0.40%/m/m, nsa in February, adding to January's 0.30% gain (vs. 0.10% in December). As a result, new home prices rose 4.1%oya in February, up from a 3.7% gain in January, with broad-based gains across city tiers, in part due to Lunar New Year seasonality (Figure 4).

Figure 4: China's house prices

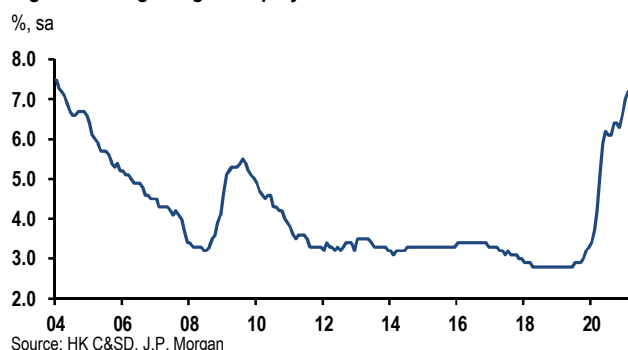


We continue to look for housing policy tightening to be one of the key dimensions of this year's policy normalization and expect housing price growth to slow gradually in the near term. Given measures to limit funding to the property sector, and with stability (stable house prices, stable land prices, and stable expectations) as the key theme in housing policy, we expect financial support from the banking system will be diverted from real estate to other targeted sectors.

Hong Kong: Unemployment rate rose further to 7.2% in February

Hong Kong's seasonally adjusted unemployment rate reached a new historical high at 7.2% for the three months ending February (Figure 5), marking a broad-based deterioration in labor market conditions, led by sectors hard-hit by the pandemic (e.g., trade, hotels, and restaurants). The underemployment rate also rose from 3.8% in Nov-Jan to 4.0% in Dec-Feb.

Figure 5: Hong Kong unemployment rate



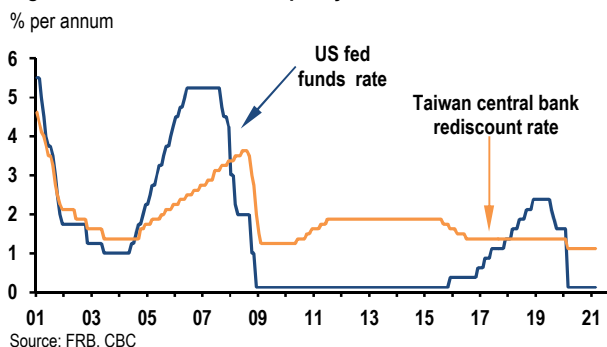
The near-term outlook for the labor market remains cloudy as the city faces the looming threat of a possible fifth wave of the pandemic from recent catering- and gym-clustered infections. We expect the government to extend existing social distancing measures on fears of further community spread. Despite the government's supportive measures to help the unemployed, labor demand remains depressed and we

expect labor market frictions, particularly the mismatch between labor supply and demand will remain a concern.

Taiwan: Central bank kept policy rates unchanged with constructive growth outlook

The Taiwan central bank kept its key policy rates unchanged at the 1Q21 monetary policy meeting, after the 25bp policy rate cut in March 2020 (Figure 6). The discount rate, the key policy rate in Taiwan, remains at 1.125%, a historical low. With a constructive outlook on the export sector and a steady recovery in domestic demand, the central bank has revised up its 2021 real GDP growth forecast to 4.53%/y from 3.68% at the December monetary policy meeting, and looks for the CPI inflation rate to rise to 1.07%/y in 2021 vs. the 0.92%/y forecast at the December meeting. Governor Yang commented that while Taiwan's economy likely will grow faster than expected earlier this year, the central bank does not see the economy overheating with the output gap still negligible. Overall, the outlook on inflation and US rates are among the factors that could affect the Taiwan central bank's rate decisions ahead. Meanwhile, to address financial stability concerns, the central bank announced further credit control measures targeting property-related loans.

Figure 6: Taiwan central bank policy rate and US fed funds rate



We expect the strengthening global demand outlook to support further solid export growth in Taiwan, especially from 2Q21 onwards, which will feed through steadily to the domestic economy by supporting the labor market and household income, and likely lead to a moderate upturn in core CPI inflation. For full-year 2021, we expect Taiwan's GDP to grow a solid 6.2%/y, and a return to positive headline CPI inflation at 1.6%/y. We expect the central bank to keep policy rates on hold this year, considering the differentiated paths of recovery across the economy (with remarkable tech/export sector outperformance vs. lagging tourism-related service sectors and SMEs), and potential concerns about triggering further near-term TWD appreciation pressure. Meanwhile, the credit tightening measures will help to curb over-heating concerns in the property market and take care of near-term financial risks. Further out, with the economic recovery broadening

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Economic Research**Global Data Watch**

March 19, 2021

J.P.Morgan

in the coming quarters, we expect the central bank to consider modest rate hikes going into next year, likely implementing two 12.5bp hikes in 1H22, essentially reversing the 25bp March 2020 rate cut in response to the COVID-19 outbreak.

China:**Data releases and forecasts**

Week of March 22 - 26

No data releases.

Review of past week's data**Fixed investment (15 Mar)**

% change

	Nov	Dec	Jan-Feb	
%oya	9.7	5.9	<u>47.5</u>	35.0
%oya, ytd	2.6	2.9	<u>47.5</u>	35.0

Industrial production (15 Mar)

%

	Nov	Dec	Jan-Feb	
%oya	7.0	7.3	<u>31.1</u>	35.1
%m/m, sa	0.8	0.7	<u>0.6</u>	

Retail sales (15 Mar)

% change

	Nov	Dec	Jan-Feb	
%oya	5.0	4.6	<u>39.0</u>	33.8
%m/m, sa	1.0	0.7	<u>0.4</u>	-1.9

Hong Kong SAR:**Data releases and forecasts**

Week of March 22 - 26

Consumer prices

Mar 22 % change

	Nov	Dec	Jan	Feb
%oya	-0.2	-0.6	1.9	<u>0.6</u>
%m/m, sa	0.0	-0.3	1.4	<u>0.1</u>

Merchandise trade

Mar 25 HK\$ bn

	Nov	Dec	Jan	Feb
Balance	-25.6	-45.7	-25.2	<u>-19.5</u>
Exports	379.6	392.2	388.0	<u>301.3</u>
%oya	5.6	11.7	44.0	<u>26.3</u>
Imports	405.2	437.9	413.2	<u>320.8</u>
%oya	5.1	14.1	37.7	<u>15.8</u>

Review of past week's data**Labor market survey (16 Mar)**

Sa, 3mma

	Dec	Jan	Feb	
Unemployment rate	6.6	7.0	<u>7.1</u>	7.2

Taiwan:**Data releases and forecasts**

Week of March 22 - 26

Export orders

Mar 22 % change

	Nov	Dec	Jan	Feb
%oya	29.7	38.3	49.3	<u>42.0</u>
%m/m, sa	12.1	9.8	-4.0	<u>5.1</u>

Labor market survey

Mar 22 %

	Nov	Dec	Jan	Feb
Unemployment rate, sa	3.77	3.76	3.75	<u>3.74</u>
Unemployment rate, nsa	3.75	3.68	3.66	<u>3.74</u>

Industrial production

Mar 23 % change

	Nov	Dec	Jan	Feb
%oya	7.7	10.3	18.8	<u>0.2</u>
%m/m, sa	0.8	3.4	0.3	<u>2.3</u>

Review of past week's data**Central bank MPC meeting (Mar 18)**

%p.a.

	3Q20	4Q20	1Q21
Rediscount rate	1.125	1.125	<u>1.125</u>

Source: NBS, China Customs, Hong Kong Census and Statistics Department, Taiwan Ministry of Economic Affairs, DGBAS, MoF, J.P. Morgan forecasts

Korea

- MPC sees lingering drags on employment and domestic demand as reason to remain dovish
- Yet, in February employment rebounded sharply from January's trough
- We see upside risk to BoK's current employment forecast for end-2021

February's minutes tell us why the MPC remains dovish in its communications. Among many reasons, it seems to be primarily worried about lasting damage to the labor market and domestic demand, which in turn should suppress core inflation pressure in the medium term. To be sure, the MPC's February forecast implies no material narrowing in the employment gap from the pre-pandemic trend. That said, this week's February labor market data suggest that employment is broadly following the recovery trend in services activity, with occasional monthly volatility. If we are correct in forecasting a service-sector recovery through 2021 as the vaccinated population gradually grows, then there appears to be upside risk to the BoK's employment forecast. Therefore, we expect the BoK's communications to turn hawkish gradually through 2021.

February minutes show MPC not ready to turn yet

The BoK released the minutes of the February MPC meeting this week; their overall tone was in line with the governor's dovish post-MPC communication. Unanimously, the members see lingering drags on employment and domestic demand, and the need to maintain an accommodative policy stance for now. The most dovish members stated that the BoK needs to be patient and maintain an accommodative stance until the recovery trend is evident, and that it is premature to mention policy normalization when inflation is depressed with a flat Phillips curve. The consensus expectation is for inflation to remain subdued at least in the core measure, bolstering the current dovish bias.

That said, views diverged subtly on financial imbalances (risk from growing household leverage) and the outlook for the GDP growth recovery. A neutral-to-hawkish member stated that policy should focus on financial imbalances once the recovery trend becomes evident. The neutral members broadly view that a modest recovery is in train particularly in external demand and facility investment, while they are concerned about lagging employment and domestic demand. In all, the policy focus may tilt toward financial imbalances from macroeconomic stability once a firm GDP recovery trend is con-

firmed, which may result in dissenting vote(s) later this year if the economic data firm further as we expect.

A strong rebound in February employment

At the time of the February MPC meeting, employment data were only available through January when employment fell 1.1%/m, sa on top of a 0.7% drop in December). However, employment jumped a stronger-than-expected 2.0% in February, fully reversing the December and January losses (Figure 1). While about half of the job gains reflected a technical rebound in policy-supported sectors, employment also increased in private services including leisure and hospitality, implying that services employment has likely bottomed as the worst of the winter virus resurgence drag has passed. Going forward, the services employment recovery should continue, taking time to fully return to the pre-pandemic level.

Figure 1: Employment



Source: NSO, and J.P. Morgan

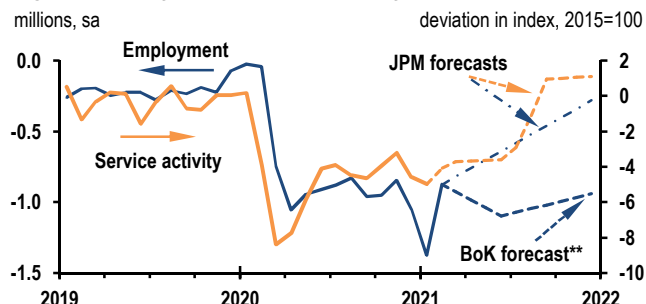
We see upside risk to BoK's employment outlook

When the BoK maintained its 2021 GDP growth outlook at 3.0%/y in February's forecast round, it projected that employment would increase by 80,000 in 2021 (average of monthly employment figures) from 2020. After this week's employment data, we see a material upside risk to this outlook.

Since the primary drag on employment is from the consumer-facing private services sector, the employment recovery should depend on the services production outlook. Figure 2 shows deviations from pre-pandemic trends in services activity and employment; the BoK's current forecast for employment implies that the employment gap remains as wide at the end of 2021 as in 2Q20. Yet after February's employment rebound, the employment gap looks broadly in line with the services gap. Thus if we are correct in forecasting that services activity should recover through 2021 (jumping notably in 3Q when we expect large-scale vaccination to be implemented), we believe that the employment gap should narrow

gradually, which implies upside risk to the BoK's employment forecast.

Figure 2: Employment and service activity*



Data releases and forecasts

Week of March 22 – 26

Wed Producer prices

Mar 24	% change				
6:00am		Nov	Dec	Jan	Feb
	%oya	-0.3	0.2	0.8	<u>2.0</u>

Wed Stage of processing price index

Mar 24	% change				
6:00am		Nov	Dec	Jan	Feb
	%oya	-3.0	-2.6	-1.3	<u>0.0</u>

Fri Consumer survey

Mar 26	100=neutral reading, nsa				
6:00am		Dec	Jan	Feb	Mar
	Index	91.2	95.4	97.4	<u>98.0</u>

Review of past week's data

Import and export prices (Mar 16)

%oya, in local currency terms					
	Dec	Jan	Feb		
Export prices	-4.7	-2.3	-1.9	<u>-0.6</u>	0.2
Import prices	-9.9	-6.7	-5.8	<u>-3.2</u>	-0.8

Unemployment rate (Mar 17)

% of labor force				
	Dec	Jan	Feb	
Seasonally adjusted	4.5	5.4	<u>5.6</u>	4.0
Not seasonally adjusted	4.1	5.7	<u>6.4</u>	4.9

Monetary aggregates (Mar 18)

%oya, monthly average				
	Nov	Dec	Jan	
M2	9.7	9.8	<u>9.7</u>	10.1
Lf	8.2	8.4	<u>8.3</u>	8.6

Source: BoK, NSO, and J.P. Morgan forecasts

ASEAN

- Singapore's February trade data depict strong external demand
- Economic recovery expected to be variegated, with a solid pickup in late 2021 as travel resumes
- Underlying inflation expected to remain quiescent despite supply-side pressures until late 2021
- We expect MAS shift to positive slope in 1H22

The incoming data suggest that goods demand in Singapore remains resilient, reflected in both the composition and geographical breadth of exports. However, despite the solid recovery in trade, the non-manufacturing recovery has been subdued reflecting the impact of travel and mobility restrictions on the non-tradable sector. While the rest of the region faces a similar dichotomy, Singapore—given its entrepot role—has greater exposure to travel- and transport-related sectors that have been harder-hit by COVID-19.

Thus, while we do expect to see a pickup in over-year-ago core inflation, which in Singapore includes energy, during 2Q21, due to a low base of comparison from oil prices last year, we expect that [underlying price pressures will be more benign](#). This slower-moving trend should reflect the gradual recovery in overall labor payrolls, which in our estimates, is a key input into core prices. Thus, we expect the Monetary Authority to move toward a positive NEER slope only in 1H22 and not this year despite the near-term supply-side-driven rise in core inflation.

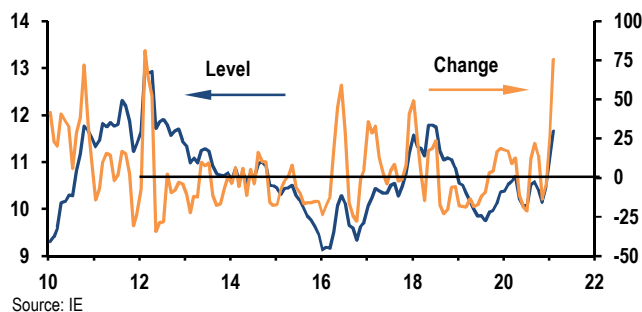
A solid trade recovery does not lift all boats

Singapore's non-oil domestic exports (NODX) surged 78.7%3m/3m, saar in February (Figure 1).

Figure 1: Singapore non-oil domestic exports

US\$bn, 3mma, sa

%3m/3m, saar

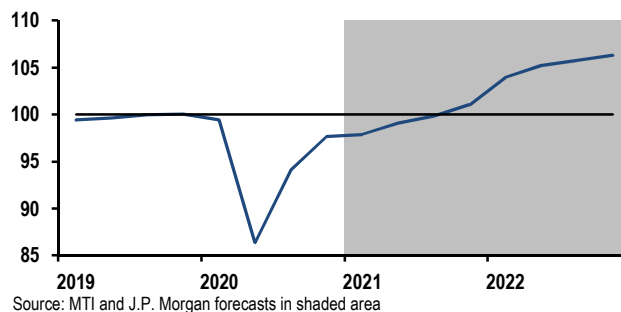


Compositionally, the February NODX rise owed to non-pharmaceuticals—including gold—and electronics exports while pharmaceuticals shipments contracted 20%3m/3m, sa.

Geographically, exports to the G-3 were notably lackluster while exports elsewhere—both within and outside of EM Asia—posted strong gains. Given the expected recovery in the rest of the world, we expect the revival in goods demand to continue though mixed in with periodic volatility. However, despite the solid growth in trade, our Singapore forecast pencils a gradual recovery over 2021, with a step up late in the year reflecting the opening up of travel as global vaccination increase herd immunity (Figure 2).

Figure 2: Singapore real GDP index

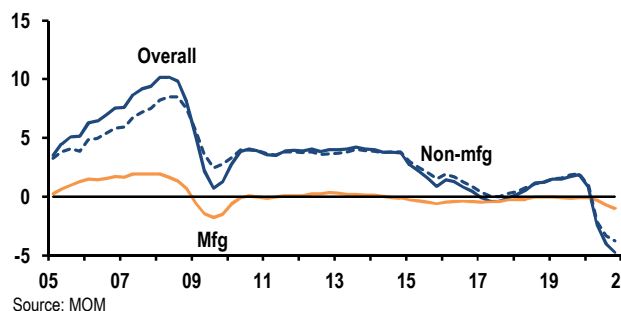
Index, 4Q19=100, sa



The variegated recovery is evident in the labor market, where nonmanufacturing employment has taken the brunt of the losses, juxtaposing with the 2009 recession, when losses in manufacturing employment drove the bulk of the overall decline in employment (Figure 3).

Figure 3: Singapore employment by sector

%pt. contribution to %oya employment growth

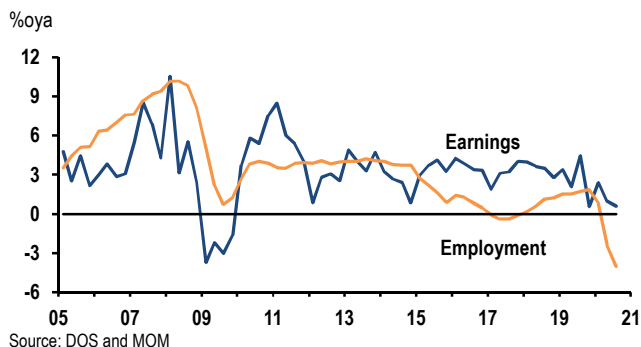


Employment to grow more firmly in late 2021

In this context, the 2021 budget provides for ongoing transfers, with S\$11 billion (2.2% of GDP) set aside to support the ongoing battle against COVID-19—S\$4.8 billion (1% of GDP) for vaccinations and ongoing testing and tracing measures and the rest for transfers to households and businesses. The Jobs Support Scheme (JSS) has been extended to September 2021 from June for the worst-affected sectors: aviation and tourism. The JSS likely has provided a helpful offset to employers and households alike in mitigating the fallout

from COVID-19 and likely helped to stabilize earnings even as employment declined (Figure 4).

Figure 4: Singapore employment and average monthly earnings



Energy to lift core CPI in 2Q21 even as underlying trend remains benign

During 2Q21, we expect energy prices to firm further in over-year-ago terms and within the core inflation basket. This would be most apparent in retail motor fuel prices, which tend to lag crude oil prices by around one month, and also in utility prices, which lag crude by around four months (Table 1 and Figures 5 and 6).

Table 1: Estimates of Singapore core CPI

%oya, local currency terms, 2010-2019

Independent variable	Lag	Coefficient	T-stat
Constant	None	0.43	5.17
Core	1-mo	0.60	11.33
Crude oil prices	4-mo	0.04	2.80
Commercial rents	9-mo	0.01	6.19
Labor earnings	1-mo	0.02	4.14
R ²	0.89		
Std Err	0.24	DW stat.	1.87

Dependent variable: Core CPI inflation. Source: J.P. Morgan estimates

Figure 5: Singapore crude oil prices and utility costs

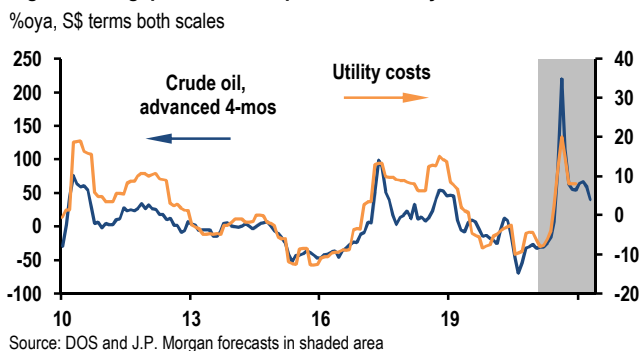
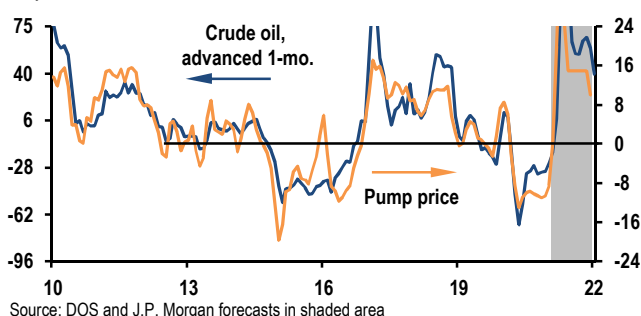


Figure 6: Singapore crude oil prices and motor gasoline price

%oya, S\$ terms, both scales

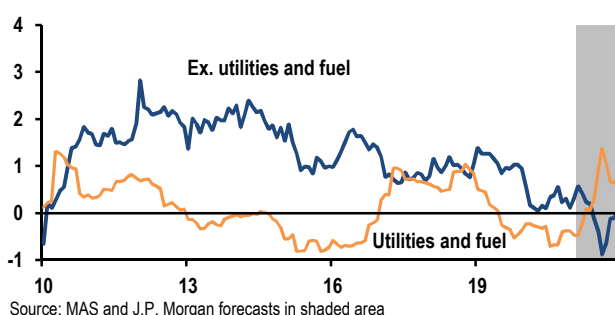


Penciling in first MAS move in 1H22

However, despite the firming of fuel prices, we expect core inflation to lag the rise in energy prices, weighed down by lackluster industrial rents and a still-tentative recovery in labor markets. This judgment leads us to pencil a benign trajectory for core inflation despite the rise in energy prices (Figure 7). Similarly, we expect that the Monetary Authority will be more focused on employment and wage developments than on the impact of energy prices.

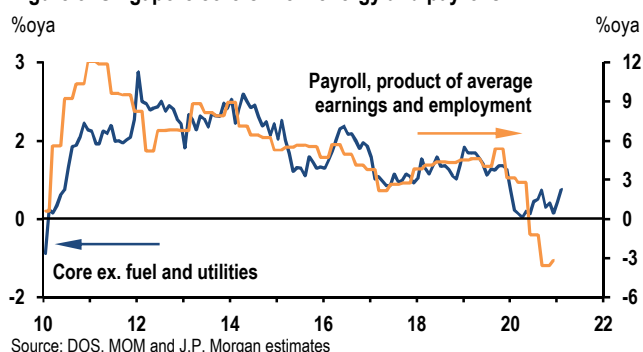
Figure 7: Singapore core CPI by contribution

%pt. contribution to %oya core CPI



Indeed, core inflation, net of energy prices, has been easing since 2014, with its contours following the trend in payrolls (Figure 8). As the economy recovers over the course of this year, we would expect employment to strengthen, albeit with a two- to three-quarter lag relative to GDP. Subsequently, we expect the labor market recovery to gain momentum in late 2021, with the attendant pickup in underlying core prices more apparent in late 2021 and 2022. Thus, we would expect the MAS to shift its NEER to a positive slope only in 1H22 rather than 2H21.

Figure 8: Singapore core CPI ex. energy and payrolls



Indonesia

Data releases and forecasts

Week of March 22 – 26

No data releases.

Review of past week's data

Merchandise trade (Mar 15)

US\$ bn, nsa

	Dec	Jan	Feb	
Trade balance	2.1	2.0	4.0	2.0
Exports, %oya	14.6	12.2	10.6	8.6
Imports, %oya	-0.5	-6.6	0.5	14.9

Indonesia's February trade data further affirm the view that the recovery in domestic demand is proceeding apace following the COVID-19-related pause in January. This development is manifesting in the external balance and, with mobility improving in February and March, it seems likely that domestic demand should continue recovering in 1Q21 and into 2Q21.

BI monetary policy meeting (Mar 18)

% pa

	Jan	Feb	Mar
BI rate	3.75	3.50	3.50

As expected, Bank Indonesia kept its policy rate on hold at 3.5% and we expect it will remain on hold through 2021. In the accompanying press statements, BI reaffirmed its macroeconomic forecasts, expecting 2021 growth to range between 4.3% and 5.3%oya (J.P. Morgan: 5.0%oya), the current account deficit to widen to 1%-2% of GDP (J.P. Morgan: -1.4% of GDP) from a 0.5% of GDP deficit last year, and inflation to remain within the 2%-4%oya target range (J.P. Morgan: 2.1%oya by year-end).

Malaysia

Data releases and forecasts

Week of March 22 – 26

Wed	Consumer prices
Mar 23	% change

12:00pm		Nov	Dec	Jan	Feb
Total, %oya		-1.7	-1.4	-0.2	-0.1
%m/m, sa		-0.2	0.5	1.2	0.2

Review of past week's data

No data releases.

Philippines:

Data releases and forecasts

Week of March 22 – 26

Thu	BSP monetary policy meeting				
Mar 25	% pa				
		Dec	Jan	Feb	Mar
	Reverse repo rate	2.00	2.00	2.00	2.00

Review of past week's data

No data releases.

Singapore:

Data releases and forecasts

Week of March 22 – 26

Tue	Consumer prices				
Mar 23	% change				
1:00pm		Nov	Dec	Jan	Feb
	Total, %oya	-0.1	0.0	0.2	<u>0.6</u>
	%m/m, sa	-0.1	0.4	0.5	<u>0.0</u>
Fri	Industrial production				
Mar 26	% change				
1:00pm		Nov	Dec	Jan	Feb
	%oya	19.4	16.2	8.6	<u>38.3</u>
	%m/m, sa	4.3	1.4	4.6	4.0

Review of past week's data

Merchandise trade (Mar 17)

US\$ bn, nsa

	Dec	Jan	Feb	
Trade balance	4.6	4.5	4.5	3.7
Exports	34.7	33.9	34.9	32.1
Non-oil domestic(NODX)	11.3	11.4	11.5	10.7
...%m/m, sa, US\$ terms	5.9	7.5	2.7	8.1
...%oya, US\$ terms	8.8	14.9	18.1	9.1

Compositionally, the February NODX rise owed to non-pharma—including gold—and electronics exports while pharmaceuticals contracted 20% m/m, sa. Geographically, there were strong gains in exports to non-G-3, both within and outside of EM Asia, while exports to the G-3 were notably lackluster.

Thailand:

Data releases and forecasts

Week of March 22 – 26

Wed	BoT monetary policy meeting				
Mar 24	% pa				
		Dec	Jan	Feb	Mar
	1-day repo	0.50	0.50	0.50	<u>0.50</u>

Review of past week's data

No data releases.

Vietnam:

Data releases and forecasts

Week of March 22 – 26

No data releases.

Review of past week's data

No data releases.

Source: Central Bureau of Statistics, Indonesia; Department of Statistics, Malaysia Coordination Board and National Statistics Office, Philippines, Singapore Statistics Department, Office for Industrial Economics, Thailand; Bank of Thailand; General Statistics Office of Vietnam; J.P. Morgan forecasts

India

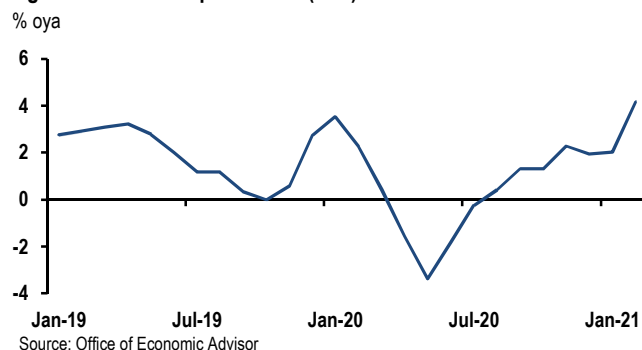
- **WPI inflation continued to accelerate on strengthening global commodity prices**
- **Core WPI inflation also accelerated reflecting cost push pressures**
- **Imports continued to firm in February led by consumer goods**
- **Exports consolidated in February**

This week's February WPI release again reflected the cost-push pressures faced by the economy, with WPI inflation continuing to accelerate sharply. But the key question facing policymakers is how these pressures will manifest in CPI inflation. In our view, passthrough from input prices to output prices would depend on firms' pricing power. If firms are confident about demand they would be more inclined to pass on cost increases, resulting in higher CPI inflation. Notably, core CPI inflation momentum in January and February was elevated. Meanwhile, the trade report revealed that domestic activity continues to firm, led by consumer goods.

WPI inflation continued to accelerate...

Wholesale Price Index (WPI) inflation accelerated further in February, printing at 4.2%oya—the highest in more than two years—up from 2.0% in January, reflecting strong global commodity prices (Figure 1). Headline prices rose 1.1% m/m, sa in February after a 0.9% average increase in the last eight months, led by food (+2.3% m/m, sa) and fuel prices (+4.8%). To be sure, the increase in food prices does not appear to be driven primarily by strong global agricultural commodity prices. For example cereals prices fell 6.6%oya in February, in contrast to surging global cereal prices. Rather, a 5.9% m/m, nsa jump in volatile fruit prices led February's rise in food inflation. By contrast, the jump in fuel prices reflects surging oil prices.

Figure 1: Wholesale price index (WPI)

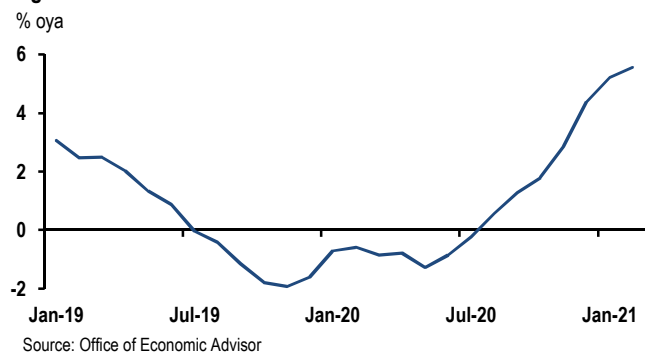


...reflecting higher global commodity prices

Core wholesale prices rose 0.5% m/m, sa in February, which translates into 5.6%oya core WPI inflation (Figure 2). Core inflation has continued to accelerate sharply over the last few months reflecting global commodity price strength.

More broadly, continued strength in WPI inflation reflects cost-push pressures. The main question from the policy side is how these pressures manifest in CPI inflation—which is what the RBI targets. In our view, pass-through from input prices to output prices depends on firms' pricing power. If firms are confident about demand they would be more inclined to pass on cost increases, resulting in higher CPI inflation.

Figure 2: Core WPI



February trade report shows contrasting trends

The February trade report revealed contrasting trends between domestic and external demand. While domestic demand continues to firm, external demand appears to be consolidating after a sharp run-up. Imports remained strong in February with imports ex. oil and gold jumping 5.3% m/m, sa (Figure 3). A 6% sequential increase in volumes drove the increase with manufacturing imports. Consumer goods led the recovery in imports, reaching 122% of the pre-pandemic level compared to 90% for capital goods (Figure 4).

Figure 3: Imports ex oil and gold

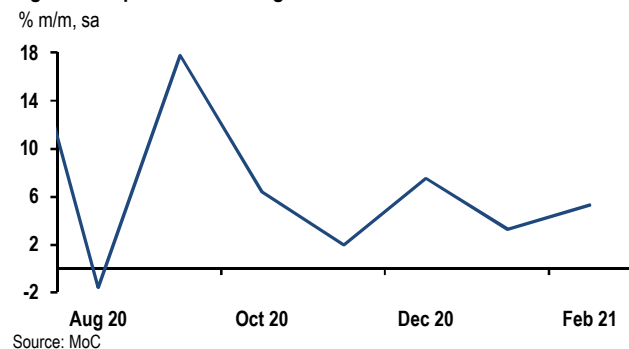
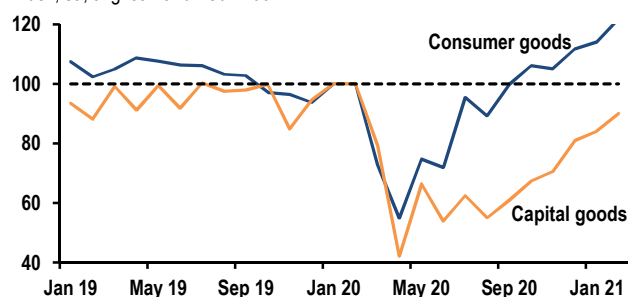


Figure 4: Consumer and capital goods imports

Index, sa, avg. Jan and Feb =100

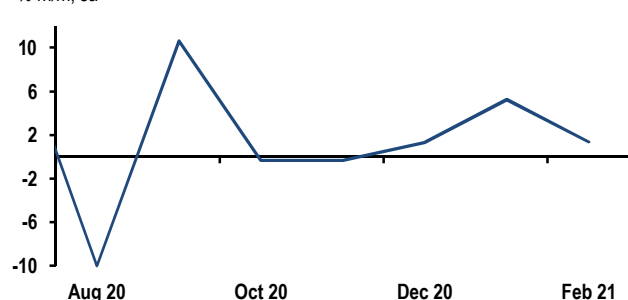


Source: MoSPI

Exports appear strong, with shipments ex. oil rising by 1.4% in February (Figure 5). However, commodity prices appear to be driving these gains, as manufacturing exports (a proxy for underlying volume growth) were edged down by 0.2% in February. To be sure, the soft manufacturing exports follow a strong gains in January (4.3% m/m, sa) and December (2.2%). All this suggests that external demand is consolidating after a steep run-up in recent months. Meanwhile, gold imports continued to increase coming in at US\$5.3bn—the highest since August, 2015—reflecting the firming of domestic demand.

Figure 5: Exports ex oil

% m/m, sa

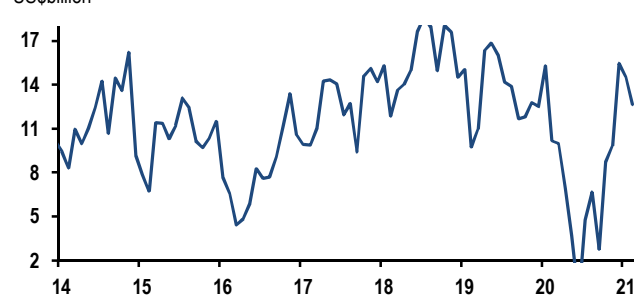


Source: MoC

Reflecting the trends in exports and imports the trade deficit narrowed to US\$12.6bn in February from US\$14.5bn (Figure 6).

Figure 6: Merchandise trade deficit

US\$ billion



Source: Ministry of Commerce

Data releases and forecasts

Week of March 22 - 26

No data releases.

Review of past week's data

Trade balance

%m/m, sa

	Nov	Dec	Jan	Feb
Exports (ex oil)	-0.3	1.3	5.3	1.4
Imports (ex oil ex gold)	2.0	7.5	3.3	5.3
Trade balance (USD bn)	9.8	15.4	14.5	12.6

Wholesale prices

% oya

	Nov	Dec	Jan	Feb
Overall	2.3	2.0	2.0	4.2
Core	2.8	4.4	5.2	5.6

Source: Central Statistical Organization, RBI, Ministry of Commerce, IHS-Markit, and J.P. Morgan forecasts

US economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
22 Mar Existing home sales (10:00am) Feb <u>6.20mn</u> QFR (10:00am) 4Q Fed Chair Powell speaks (9:00am) Richmond Fed President Barkin speaks (10:00am) San Francisco Fed President Daly speaks (1:00pm) Fed Vice Chair Quarles speaks (1:30pm) Fed Governor Bowman speaks (7:15pm)	23 Mar Current account (8:30am) 4Q Philadelphia Fed nonmanufacturing (8:30am) Mar New home sales (10:00am) Feb <u>860,000</u> Richmond Fed survey (10:00am) Mar Auction 2-year note \$60bn St. Louis Fed President Bullard speaks (9:00am) Atlanta Fed President Bostic speaks (10:10am) Richmond Fed President Barkin speaks (11:00am) Fed Chair Powell speaks (12:00pm) Fed Governor Brainard speaks (1:30pm) New York Fed President Williams speaks (2:45pm) Fed Governor Brainard speaks (3:45pm)	24 Mar Durable goods (8:30am) Feb <u>-0.2%</u> Manufacturing PMI (9:45am) Mar flash <u>60.0</u> Services PMI (9:45am) Mar flash <u>60.5</u> Auction 2-year FRN (r) \$26bn Auction 5-year note \$61bn Richmond Fed President Barkin speaks (8:50am) Fed Chair Powell speaks (10:00am) New York Fed President Williams speaks (1:35pm) San Francisco Fed President Daly speaks (3:00pm) Chicago Fed President Evans speaks (7:00pm)	25 Mar Initial claims (8:30am) w/e Mar 20 <u>725k</u> Real GDP (8:30am) 4Q final <u>4.2%</u> KC Fed survey (11:00am) Mar Auction 7-year note \$62bn New York Fed President Williams speaks (5:30am) Atlanta Fed President Bostic speaks (12:00pm) Chicago Fed President Evans speaks (1:00pm) Fed Vice Chair Clarida speaks (3:45pm) San Francisco Fed President Daly speaks (7:00pm)	26 Mar Personal income (8:30am) Feb <u>-7.6%</u> Advance economic indicators (8:30am) <u>-86.4bn</u> Feb Consumer sentiment (10:00am) Mar final <u>83.5</u>
29 Mar Dallas Fed manufacturing (10:30am) Mar	30 Mar FHFA HPI (9:00am) Jan S&P/Case-Shiller HPI (9:00am) Jan Consumer confidence (10:00am) Mar Dallas Fed services (10:30am) Mar New York Fed President Williams speaks (2:30pm)	31 Mar ADP employment (8:15am) Feb Chicago PMI (9:45am) Mar Pending home sales (10:00am) Feb	1 Apr Initial claims (8:30am) w/e Mar 27 Manufacturing PMI (9:45am) Mar final ISM manufacturing (10:00am) Mar Construction spending (10:00am) Feb Light vehicle sales Mar Philadelphia Fed President Harker speaks (1:00pm)	2 Apr Employment (8:30am) Mar Good Friday, stock market closed
5 Apr Services PMI (9:45am) Mar final ISM services (10:00am) Mar Factory orders (10:00am) Feb	6 Apr JOLTS (10:00am) Feb	7 Apr International trade (8:30am) Feb Consumer credit (3:00pm) Feb Chicago Fed President Evans speaks (9:00am) FOMC minutes	8 Apr Initial claims (8:30am) w/e Apr 3 Announce 10-year note (r) <u>\$38bn</u> Announce 30-year bond (r) <u>\$24bn</u> Announce 3-year note <u>\$58bn</u>	9 Apr PPI (8:30am) Mar Wholesale trade (10:00am) Feb
12 Apr Federal budget (2:00pm) Mar Auction 10-year note (r) <u>\$38bn</u> Auction 3-year note <u>\$58bn</u>	13 Apr NFIB survey (6:00am) Mar CPI (8:30am) Mar Auction 30-year bond (r) <u>\$24bn</u> Philadelphia Fed President Harker speaks (12:00pm)	14 Apr Import prices (8:30am) Mar Beige book (2:00pm) Fed Vice Chair Clarida speaks (3:00pm)	15 Apr Initial claims (8:30am) w/e Apr 10 Retail sales (8:30am) Mar Empire State survey (8:30am) Apr Philadelphia Fed manufacturing (8:30am) Apr Industrial production (9:15am) Mar Business inventories (10:00am) Feb NAHB survey (10:00am) Apr TIC data (4:00pm) Feb Announce 20-year bond (r) <u>\$24bn</u> Announce 5-year TIPS <u>\$18bn</u>	16 Apr Housing starts (8:30am) Mar Business leaders survey (8:30am) Apr Consumer sentiment (10:00am) Apr preliminary

Source: Private and public agencies and J.P. Morgan. Further details available upon request.

Euro area economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
22 Mar Euro area: Balance of Payments (10:00am) Jan Belgium: BNB cons. conf. (11:00am) Mar Speech by ECB's Schnabel (4:15pm)	23 Mar Speech by ECB's Enria (9:00am) Speech by ECB's McCaul (12:55pm)	24 Mar Euro area: PMI mfg prelim (10:00am) Mar 55.8 PMI serv. & comp prelim (10:00am) Mar <u>Services: 44.2</u> <u>Composite: 47.6</u> EC cons. Conf. flash (4:00pm) Mar -16.0 Germany: PMI mfg prelim (9:30am) Mar PMI serv. & comp prelim (9:30am) Mar France: PMI mfg prelim (9:15am) Mar PMI serv. & comp prelim (9:15am) Mar	25 Mar Euro area: M3 money supply (10:00am) Feb Germany: GfK cons. conf. (8:00am) Mar France: INSEE bus. conf. (8:45am) Mar Belgium: BNB bus. conf. (3:00pm) Mar	26 Mar Germany: IFO bus. survey (10:00am) Mar <u>Business climate: 92.4</u> <u>Business situation: 91.0</u> <u>Business expectations: 94.0</u> Italy: ISAE bus. conf. (10:00am) Mar ISAE cons. conf. (10:00am) Mar Spain: GDP final (9:00am) 4Q <u>0.4%q/q, sa</u> <u>1.6%q/q, saar</u> <u>-9.1%oya</u>
29 Mar	30 Mar Euro area: EC cons. Conf. (11:00am) Mar Germany: CPI 6 states & prelim (2:00pm) Mar Import price index (8:00am) Feb France: INSEE cons. conf. (8:45am) Mar Spain: CPI flash (9:00am) Mar HICP flash (9:00am) Mar Belgium: CPI (8:00am) Mar	31 Mar Euro area: HICP flash (11:00am) Mar MFI interest rates (10:00am) Feb Germany: Employment (9:55am) Mar Unemployment (9:55am) Mar France: Cons. of mfg goods (8:45am) Feb CPI flash (8:45am) Mar PPI (8:45am) Feb Italy: PPI (10:00am) Feb CPI prelim (11:00am) Mar Netherlands: CBS bus. conf. (6:30am) Mar	1 Apr Euro area: PMI mfg final (10:00am) Mar Germany: PMI mfg final (9:55am) Mar Retail sales (8:00am) Feb France: PMI mfg final (9:50am) Mar Italy: PMI mfg final (9:45am) Mar Spain: PMI mfg final (9:15am) Mar	2 Apr France: Monthly budget situation (8:45am) Feb
5 Apr	6 Apr Euro area: Unemployment rate (11:00am) Feb	7 Apr Euro area: PMI serv. & comp (10:00am) Mar Germany: PMI serv. & comp (9:55am) Mar France: PMI serv. & comp (9:50am) Mar Italy: PMI serv. & comp (9:45am) Mar Spain: PMI serv. & comp (9:15am) Mar	8 Apr Euro area: PPI (11:00am) Feb Germany: Mfg orders (8:00am) Feb France: Foreign trade (8:45am) Feb Netherlands: CPI (6:30am) Mar	9 Apr Germany: Foreign trade (8:00am) Feb Industrial production (8:00am) Feb France: Industrial production (8:45am) Feb
12 Apr Euro area: Retail sales (11:00am) Feb	13 Apr Germany: ZEW bus. survey (11:00am) Apr Italy: Industrial production (10:00am) Feb	14 Apr Euro area: Industrial production (11:00am) Feb Spain: CPI final (9:00am) Mar HICP flash (9:00am) Mar	15 Apr Germany: CPI final (8:00am) Mar France: CPI final (8:45am) Mar Italy: CPI final (10:00am) Mar	16 Apr Euro area: Car registrations (8:00am) Mar Foreign trade (11:00am) Feb HICP final (11:00am) Mar Italy: Foreign trade (10:00am) Feb

Highlighted data are scheduled for release on or after the date shown. Times shown are local. Source: Private and public agencies and J.P. Morgan. Further details available upon request.

Japan economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
22 Mar	23 Mar	24 Mar Corporate service prices (8:50am) Feb PMI manufacturing prelim (9:30am) Feb <u>52.0</u> PMI service prelim (9:30am) Feb <u>47.8</u> Minutes of Jan 20, 21 BoJ Monetary Policy Meeting (8:50am) Auction 6-month bill	25 Mar Auction 40-year note	26 Mar Tokyo core CPI (8:30am) Mar Ex. fresh food <u>0.0%oya</u> Ex. fresh food and energy <u>0.2%oya</u> Auction 3-month bill
29 Mar Summary of Opinions at the Monetary Policy Meeting (Held on March 18, 19)	30 Mar Job offers to applicants ratio (8:30am) Feb Unemployment rate (8:30am) Feb Total retail sales (8:50am) Feb Auction 2-year note	31 Mar IP prelim (8:50am) Feb Housing starts (2:00pm) Feb	1 Apr BoJ Tankan (8:50am) 1Q PMI manufacturing final (9:30am) Feb Auto registrations (2:00pm) Mar Auction 10-year note	2 Apr Auction 3-month bill
5 Apr PMI services final (9:30am) Feb	6 Apr All household spending (8:30am) Feb Employers' survey (8:30am) Feb Auction 30-year note	7 Apr Consumption activity index (2:00pm) Feb	8 Apr Current account (8:50am) Feb Consumer sentiment (2:00pm) Mar Economy watchers' survey (3:00pm) Mar Auction 6-month bill Auction 5-year note	9 Apr Auction 3-month bill
12 Apr Bank lending (8:50am) Mar Corporate goods prices (8:50am) Mar	13 Apr M2 (8:50am) Mar	14 Apr Private machinery orders (8:50am) Feb	15 Apr	16 Apr Reuters Tankan (8:50am) Apr Auction 3-month bill

Times shown are local. Source: Private and public agencies and J.P. Morgan. Further details available upon request.

Canada economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
22 Mar Wholesale sales, early indicator (8:30am) Feb	23 Mar Deputy Governor Toni Gravelle speaks to the CFA Society Toronto on "The role of the Bank of Canada in responding to market-wide stress," by videoconference (1:15pm)	24 Mar Manufacturing sales, flash estimate (8:30am) Feb	25 Mar CFIB Business Barometer Index (6:00am) Mar Food services and drinking places (8:30am) Jan	26 Mar
29 Mar	30 Mar Payroll employment (8:30am) Jan	31 Mar Monthly GDP (8:30am) Feb IPPI (8:30am) Feb	1 Apr Building permits (8:30am) Feb Markit manufacturing PMI (9:30am) Mar	2 Apr <i>Good Friday</i> <i>Markets closed</i>
5 Apr	6 Apr	7 Apr International trade (8:30am) Feb Ivey PMI (10:00am) Mar	8 Apr	9 Apr Labor Force Survey (8:30am) Mar
12 Apr BoC Business Outlook Survey/Canadian Survey of Consumer Expectations (10:30am) 1Q	13 Apr	14 Apr	15 Apr Manufacturing sales (8:30am) Feb Existing home sales (9:00am) Mar	16 Apr Wholesale sales (8:30am) Feb International transactions in securities (8:30am) Feb New vehicle sales (8:30am) Feb

Source: Private and public agencies and J.P. Morgan. Further details available upon request. All existing home sales are tentative.

Latin America economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
22 Mar Argentina: Budget balance Feb <u>-ARS43bn</u>	23 Mar Argentina: GDP 4Q <u>-4.4%oya</u>	24 Mar Mexico: Biweekly core CPI <u>0.16%2w/2w;</u> <u>3.90%oya</u> Biweekly CPI <u>0.35%2w/2w;</u> <u>3.93%oya</u> Unemployment Feb Uruguay: GDP 4Q20 <u>-2.8%oya</u>	25 Mar Argentina: Unemployment rate <u>12.0%</u> Brazil: IPCA-15 Mar <u>0.93%m/m;</u> <u>5.52%oya</u> Mexico: GDP monthly proxy Jan <u>-</u> <u>0.2%m/m;</u> <u>-5.5%oya</u> Retail sales Jan <u>-1.6%m/m;</u> <u>-</u> <u>8.5%oya</u> Banxico meeting Mar <u>4.0% (on</u> <u>hold)</u>	26 Mar Argentina: Trade balance Feb <u>US\$0.8bn</u> Brazil: Current Account Feb <u>-US\$2.4bn</u> FDI Feb <u>US\$5.5bn</u> Colombia: BanRep meeting Mar <u>1.75% (on</u> <u>hold)</u> Mexico: Trade balance <u>US\$2.9bn</u> Uruguay: BCU meeting Mar <u>4.5% (on hold)</u>
During the week: Brazil: Tax collections Feb (22-25 Mar) Paraguay: GDP 4Q (26-31 Mar) <u>0.8%oya</u>				
29 Mar 	30 Mar Argentina: Economic activity Jan Brazil: IGP-M Mar Chile: BCC Mar Mexico: PS budget balance Feb	31 Mar Brazil: Primary budget balance Feb Chile: Industrial production Jan Retail sales Jan Unemployment Jan Colombia: Unemployment Feb	1 Apr Brazil: IP PMI Manufacturing Mar Trade balance Mar Peru: CPI Mar	2 Apr
During the week: Brazil: Central government budget Feb (29-31 Mar)				
5 Apr Argentina: Tax Collections Mar Brazil: FIPE CPI Mar Colombia: CPI Mar Mexico: Remittances Feb IMEF manufacturing index Mar IMEF nonmanufacturing index Mar Uruguay: CPI Mar	6 Apr Colombia: Exports Feb	7 Apr Argentina: Vehicle production Mar Vehicle sales Mar Brazil: IGP-DI Mar Chile: Trade balance Mar Nominal Wage Feb Mexico: GFI Jan	8 Apr Mexico: Auto report Mar Biweekly core CPI Biweekly CPI Core CPI Mar CPI Mar Peru: Reference rate Apr	9 Apr Brazil: IPCA Mar Mexico: IP
During the week: Brazil: Vehicle sales Mar (7-8 Apr) Brazil: Auto production Mar (7-8 Apr) Chile: Vehicle Sales Total Mar (8-13 Apr) Peru: Trade balance Feb (9-13 Apr)				
12 Apr Mexico: ANTAD same-store sales Mar Uruguay: Industrial production Feb	13 Apr Brazil: Retail sales Feb	14 Apr 	15 Apr Peru: Economic Activity Feb National Unemployment rate Mar Colombia: IP Feb Retail sales Feb Argentina: CPI Mar	16 Apr

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UK and Scandinavia economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
22 Mar	23 Mar United Kingdom: Labor market report (7:00am) Jan <u>Unemployment rate: 5.2</u> <u>-single month: 5.5</u> CBI industrial trends (11:00am) Mar	24 Mar United Kingdom: CPI (7:00am) Feb <u>CPI: 0.8%oya</u> <u>Core CPI: 1.4%oya</u> <u>RPI: 296.5</u> <u>RPI: 1.5%oya</u> ONS HPI (9:30am) Jan PMI Mfg prelim (9:30am) Mar <u>Output: 51.0</u> PMI Services prelim (9:30am) Mar <u>Services: 52.2</u> <u>Composite: 52.0</u>	25 Mar United Kingdom: CBI distributive trades (11:00am) Mar Sweden: Household lending (9:30am) Feb PPI (9:30am) Feb Financial market statistics (9:00am) Feb	26 Mar United Kingdom: Retail sales (7:00am) Feb Car manufacturing (12:01am) Feb Sweden: Retail sales (9:30am) Feb Trade balance (9:30am) Feb Norway: Credit indicator growth (8:00am) Feb Labor directorate unemployment (10:00am) Mar
During the week: Nationwide HPI Mar (28-3 Apr)				
29 Mar United Kingdom: M4 & M4 lending final (9:30am) Feb Net lending to individuals (9:30am) Feb	30 Mar Sweden: Consumer confidence (9:00am) Mar Economic Tendency survey (9:00am) Mar Norway: Retail sales (8:00am) Feb	31 Mar United Kingdom: BoP (7:00am) 4Q Business investment final (7:00am) 4Q Real GDP final (7:00am) 4Q	1 Apr United Kingdom: PMI Mfg final (9:30am) Mar BCC quarterly economic survey (12:01am) Sweden: PMI mfg (8:30am) Mar Norway: PMI Mfg (10:00am) Mar	2 Apr
5 Apr Sweden: Services PMI (8:30am) Mar	6 Apr United Kingdom: New car regs (9:00am) Mar	7 Apr United Kingdom: PMI Services final (9:30am) Mar	8 Apr United Kingdom: RICS HPI (12:01am) Mar PMI Construction (9:30am) Mar Markit jobs report (12:01am) Mar Sweden: Industrial production & orders (9:30am) Feb Household consumption (9:30am) Feb Norway: IP Mfg (8:00am) Feb Housing price statistics (11:00am) Mar	9 Apr United Kingdom: BoE quarterly bulletin (12:00pm) Sweden: Budget Balance (9:30am) Mar Norway: CPI (8:00am) Mar PPI (8:00am) Mar
12 Apr Norway: Monthly GDP (8:00am) Feb	13 Apr United Kingdom: Monthly GDP (9:30am) Feb Index of services (7:00am) Feb Industrial production (7:00am) Feb Trade balance (7:00am) Feb BRC retail sales monitor (12:01am) Mar Sweden: PES unemployment (6:00am) Mar	14 Apr United Kingdom: Quarterly productivity (9:30am) 4Q Sweden: CPI (9:30am) Mar	15 Apr United Kingdom: BoE quarterly credit conditions survey (9:30am) 1Q Sweden: Prospera inflation expectations (8:00am) Mar Norway: Trade balance (8:00am) Mar	16 Apr

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Emerging Europe/Middle East/Africa economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
22 Mar Ghana: BOG rate decision Mar <u>50bp cut: 14.00%</u> Ukraine: GDP final (3:30pm) 4Q <u>-0.7%oya</u>	23 Mar Hungary: Current account (8:30am) 4Q NBH rate decision (2:00pm) Mar <u>On hold: 0.60%</u> Poland: Unemployment (10:00am) Feb Nigeria: CBN rate decision Mar <u>On hold: 11.50%</u>	24 Mar Czech Republic: CNB rate decision (2:30pm) Mar <u>On hold: 0.25%</u> South Africa: CPI (10:00am) Feb <u>3.2%oya</u>	25 Mar South Africa: SARB rate decision Mar <u>On hold: 3.50%</u> Zambia: CPI Mar <u>23.0%oya</u>	26 Mar Turkey: Capacity utilization (9:00am) Mar <u>74.3%</u>
29 Mar Hungary: Trade balance final (9:00am) Jan Kenya: CBK rate decision Mar	30 Mar Hungary: Unemployment (9:00am) Jan South Africa: Private sector credit (7:00am) Feb Quarterly employment statistics (10:30am) 4Q Budget (2:00pm) Feb	31 Mar Hungary: Average gross wages (9:00am) Jan PPI (9:00am) Jan Russia: Current account final (4:00pm) 4Q Turkey: Foreign trade (10:00am) Feb South Africa: Trade balance (2:00pm) Feb Egypt: GDP 4Q Kenya: CPI Feb Saudi Arabia: SAMA net foreign assets Feb	1 Apr Czech Republic: GDP final (9:00am) 1Q PMI (9:30am) Mar Hungary: PMI (9:00am) Mar Poland: PMI (9:00am) Mar Russia: Manufacturing PMI (9:00am) Mar Turkey: PMI (10:00am) Mar South Africa: Vehicle sales Mar Barclays PMI (11:00am) Mar	2 Apr
During the week: Poland: CPI prelim Feb (30-31 Mar) Kazakhstan: CPI Mar (1-2 Apr) Russia: GDP 1Q (1-2 Apr)				
5 Apr Romania: Retail sales (9:00am) Feb Turkey: CPI (10:00am) Mar	6 Apr	7 Apr Czech Republic: Retail sales (9:00am) Feb Poland: NBP rate decision Apr Nigeria: PMI (8:45am) Feb	8 Apr Czech Republic: Industrial output (9:00am) Feb Trade balance (9:00am) Feb Hungary: Industrial output (9:00am) Feb Trade balance (9:00am) Feb Romania: GDP final (9:00am) 1Q Egypt: CPI Mar	9 Apr Hungary: CPI (9:00am) Mar Retail sales (9:00am) Feb Romania: Trade balance (9:00am) Feb Russia: Current account (4:00pm) 1Q Foreign trade (4:00pm) Feb Ukraine: CPI (3:00pm) Mar
During the week: Russia: CPI Mar (5-8 Apr)				
12 Apr Turkey: Current account (10:00am) Feb Angola: CPI Mar	13 Apr Czech Republic: CPI (9:00am) Mar Current account (10:00am) Feb Poland: Current account (2:00pm) Feb Romania: Current Account Feb CPI (9:00am) Mar	14 Apr South Africa: Retail sales (1:00pm) Feb Ghana: CPI Mar Nigeria: CPI Mar	15 Apr Poland: CPI (10:00am) Mar Israel: CPI (6:30pm) Mar Ukraine: NBU rate decision (2:00pm) Apr Saudi Arabia: CPI (9:00am) Mar	16 Apr Poland: Core inflation (2:00pm) Mar
During the week: Russia: Industrial output Mar (15-16 Apr) Russia: PPI Mar (15-16 Apr) Kazakhstan: GDP final 4Q (16-20 Apr)				

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Non-Japan Asia economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
22 Mar Hong Kong: CPI (4:30pm) Feb <u>0.6%oya</u> Taiwan: Export orders (4:00pm) Feb <u>42.0%oya</u> Unemployment rate (4:00pm) Feb <u>3.74%</u> SA	23 Mar Singapore: CPI (1:00pm) Feb <u>0.6%oya</u> Taiwan: IP (4:00pm) Feb <u>0.2%oya</u>	24 Mar New Zealand: Trade balance (10:45am) Feb Korea: PPI (6:00am) Feb <u>2.0%oya</u> Malaysia: CPI (12:00pm) Feb <u>-0.1%oya</u> Thailand: BOT monetary policy meeting <u>No change</u>	25 Mar Hong Kong: Trade balance (4:30pm) Feb <u>-HK\$19.5bn</u> Philippines: BSP monetary policy meeting <u>No change</u>	26 Mar Korea: Consumer survey (6:00am) Mar <u>98.0</u> Singapore: IP (1:00pm) Feb <u>38.3%oya</u>
During the week: Vietnam: CPI Mar (25-31 Mar)				
29 Mar Malaysia: Trade balance (12:00pm) Feb	30 Mar New Zealand: Building permits (10:45am) Feb Hong Kong: Retail sales (4:30pm) Jan	31 Mar Australia: Building approvals (11:30am) Jan Pvt. sector credit (11:30am) Feb New Zealand: NBZ business confidence final (1:00pm) Mar China: PMI mfg. (NBS) (9:00am) Feb India: BoP 4Q Korea: FKI Business Survey (6:00am) Feb IP (8:00am) Feb Thailand: Mfg. production (10:30am) Feb PCI (2:30pm) Feb PII (2:30pm) Feb Trade balance (2:30pm) Feb	1 Apr Australia: Retail sales (11:30am) Feb Trade balance (11:30am) Feb China: PMI Mfg. (9:45am) Apr Indonesia: CPI (11:00am) Mar Korea: Trade balance (9:00am) Mar PMI mfg. (9:30am) Mar Taiwan: PMI mfg. (8:30am) Mar <i>Holiday: Philippines</i>	2 Apr Korea: CPI (8:00am) Mar <i>Holiday: Hong Kong, Indonesia, Philippines, Singapore</i>
5 Apr India: PMI mfg. (10:30am) Apr Singapore: PMI (9:00pm) Mar Thailand: CPI (10:30am) Mar <i>Holiday: China, Hong Kong, Taiwan</i>	6 Apr Australia: ANZ job advertisements (11:30am) Mar RBA official rate announcement Philippines: CPI (9:00am) Mar <i>Holiday: Hong Kong, Thailand</i>	7 Apr New Zealand: ANZ commodity price (1:00pm) Mar China: Foreign Exchange Reserves Mar India: RBI monetary policy meeting Korea: Current account balance (8:00am) Mar	8 Apr New Zealand: NBZ business confidence (1:00pm) Apr Philippines: Trade balance (9:00am) Feb Taiwan: CPI (4:00pm) Mar	9 Apr China: CPI (9:30am) Mar PPI (9:30am) Mar Malaysia: IP (12:00pm) Feb Taiwan: Trade balance (4:00pm) Mar <i>Holiday: Philippines</i>
During the week: China: Money supply/TSF Mar (9-15 Apr)				
12 Apr India: CPI (5:30pm) Mar IP (5:30pm) Feb	13 Apr Australia: NAB business confidence (11:30am) Mar China: Trade balance Mar Korea: Money supply (12:00pm) Feb <i>Holiday: Thailand</i>	14 Apr New Zealand: RBNZ official rate announcement India: WPI (12:00pm) Mar Korea: Export price index (6:00am) Mar Import price index (6:00am) Mar Unemployment rate (8:00am) Mar <i>Holiday: Thailand</i>	15 Apr Australia: Unemployment rate (11:30am) Mar India: Trade balance (5:00pm) Mar Indonesia: Trade balance (11:00am) Mar Korea: BOK monetary policy meeting <i>Holiday: Thailand</i>	16 Apr New Zealand: Business NZ PMI (10:30am) Mar China: FAI (10:00am) Mar GDP (10:00am) 1Q IP (10:00am) Mar Retail sales (10:00am) Mar Singapore: NODX (8:30am) Mar

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Global Data Diary

Week / Weekend	Monday	Tuesday	Wednesday	Thursday	Friday
20 - 26 March	22 March	23 March	24 March	25 March	26 March
	Taiwan • Export orders (Feb) United States • Existing home sls (Feb) • QFR (4Q)	Argentina • GDP (4Q) Hungary • NBH mtg: no chg Taiwan • IP (Feb) United Kingdom • Labor mkt report (Feb) United States • New home sls (Feb)	Czechia • CNB mtg: no chg Euro area • EC cons conf (Mar, pri) • Flash PMI (Mar) Japan • Flash PMI (Mar) South Africa • CPI (Feb) Thailand • BOT mtg: no chg United Kingdom • CPI (Feb) • Flash PMI (Mar) United States • Durable goods (Feb) • Flash PMI (Mar)	Mexico • Banxico mtg: no chg Philippines • BSP mtg: no chg South Africa • SARB mtg: no chg United States • GDP (4Q, fml)	Colombia • BanRep mtg: no chg Germany • IFO srvy (Mar) Japan • Tokyo CPI (Mar) Singapore • IP (Feb) United Kingdom • Retail sales (Feb) United States • Adv econ indicators (Feb) • Personal income (Feb) • UMich cons snt (Mar, fml)
27 Mar - 2 Apr	29 March	30 March	31 March	1 April	2 April
Russia • GDP (1Q)		Chile • BCC mtg: no chg Euro area • EC cons conf (Mar, fml) Japan • Retail sales (Feb) • U-rate (Feb) United States • Case-Shiller HPI (Jan) • CB cons conf (Mar)	Euro area • CPI (Mar) Germany • U-rate (Mar) Japan • IP (Feb) Korea • IP (Feb) United Kingdom • GDP (4Q, fml) United States • ADP employment (Feb) • Pending home sls (Feb)	Brazil • IP (Feb) Czechia • GDP (1Q) Japan • BoJ Tankan (1Q) Korea • Trade balance (Mar) United States • ISM mfg (Mar) • Light vehicle sls (Mar) Global • Mfg PMI (Mar)	Korea • CPI (Mar) United States • Labor mkt report (Mar)

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Economic Research**Global Data Diary**

March 19, 2021

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Economic Research**Global Data Watch**

March 19, 2021

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